

"LIKE THUNDER AND LIGHTNING:"
BRITISH FORCE PROJECTION IN THE WEST INDIES,
1739-1800

A Thesis

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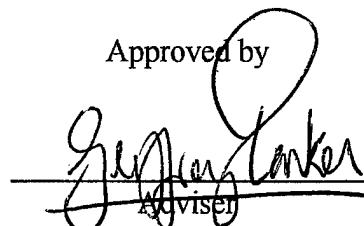
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ABSTRACT

In the 18th century, the Caribbean basin served as a near continuous battleground for the major European powers. While many historians tend to focus upon the North American conflict between the English and the French, they often overlook the very important Anglo-Spanish rivalry that occurred farther to the south. This latter struggle, in fact, eventually determined the balance of power in the West Indies. By the turn of the 19th century, England had emerged as the only true global power. When President Monroe declared the United States the protector of the Western Hemisphere in 1823, he did not do this with Spanish, French, or Portuguese approval, but with the tacit and unspoken consent of the British government. While Spanish *peninsulares* continued to rule most of Latin America, their hold remained tenuous; Britain's wars for Empire had buffeted Spanish rule and established the English as the dominant economic and military hegemon of the region. The struggle was not a preordained matter as some have argued. The Spanish retained an effective defense of their American possessions that proved difficult for the English to overcome.

This study will examine both the Spanish methods of defense in the 18th century and the British struggle to overcome geographical and man-made barriers within Spain's Caribbean Empire. As part of a changing political mentality in Georgian England, the

ministers of this island nation learned to expand their vision of economic and military power from a continental scale to a global one. A comparative study of the campaigns of Cartagena in 1741 and Havana in 1762 provides a model for examining the historical arguments stated above.

This historical investigation concludes that the Spanish effectively utilized the techniques of siege warfare, so common in Europe at this time, and environmental factors inherent in the Caribbean to extract a terrible cost on other powers that attempted to usurp its imperial authority in America. Furthermore, this paper does not assume, as most historical studies do, that the British Royal Navy served as the sole factor in giving England an unmatched advantage over its rivals. Instead, the navy served as just one factor among many that pushed Britain to the forefront of worldwide expansion. The Royal Navy was part of the creation of an entire system of force projection. This capability of extending significant power around the world developed over two and a half centuries; while English power projection began with the privateers of the late 16th century, it only became true government policy in the 18th century.

Dedicated to my wife Jackie,
without whose endurance, encouragement, and proofreading
this project would not have been possible.

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INTRODUCTORY REMARK

In order to disabuse the reader, it is necessary to make several introductory remarks concerning style, grammar, and spelling. First, during the Cartagena expedition of 1741, the English still used the Old Style Julian Calendar while inhabitants of the Spanish Empire utilized the new or Gregorian Calendar. By the start of the Seven Year's War in 1756, the English had adopted the Gregorian Calendar as well. In order to avoid confusion, all dates in this paper are new or Gregorian. Also, in order not to take away from the style and intent of the original writer or mapmaker, this thesis uses the original spelling and grammar of the primary historical documents whenever possible. It is for this same reason that the Latin abbreviation *sic* [so], which denotes faulty logic, error in fact, wrong usage, or incorrect spelling, is not used in this paper. Therefore the reader should not be confused by irregular capitalization or misspelled words so common in texts written prior to the end of the 18th century (i.e., Porto is also spelled Puerto depending on the specific source used; moskito is the same as mosquito; and Cartagena is sometimes written as Carthagen). To avoid some confusion over the early modern English usage and translation of some Spanish names, this paper uses the 18th century English spelling of a name followed by the Spanish spelling in parenthesis; this practice is done only when the specific name is first introduced in the text.

What might not be expected from Britain's Royal Navy riding (as it does) paramount of the Seas, capable too of transporting an Army sufficient to command the Enemy's Shores? ...that when they [army and navy] are united, they carry with them the most formidable power... We must tell our Countrymen, that a Military, Naval, Littoral War [amphibious warfare], when wisely prepared and discreetly conducted is a terrible Sort of War. Happy for that People who are Sovereigns enough of the sea to put it in Execution! For it comes **like Thunder and Lightning** to some unprepared Part of the World.

- Thomas More Molyneux, Conjunct Operations, 1759

Force projection is the demonstrated ability to rapidly alert, mobilize, deploy, and operate anywhere in the world. It is a key element of **power projection**—the ability of the nation to apply all or some of the elements of national power to act in crisis, to contribute to deterrence, and to enhance regional stability...**Force projection** is inherently joint in nature...In any event, rapid, yet measured response is critical. A combatant commander may be able to resolve the crisis and achieve theater aims faster by committing a smaller forward-presence force than by waiting for a larger but less timely response option...Opposed operations require a lethal and survivable forcible entry capability with forces prepared to fight immediately upon entry... Enemy capabilities, however, affect all of the above.

- U.S. Army Field Manual 100-5, June 1993

Influencing events overseas requires credible...**power projection** capabilities...Achieved through rapid strategic mobility, **power projection** will enable the timely response critical to our deterrent and warfighting capabilities...A sustainable forcible-entry capability is essential whether or not land basing adjacent to a conflict is possible.

-U.S. Joint Chiefs of Staff, Concept for Future Joint Operations: Expanding Joint Vision 2010, May 1997

INTRODUCTION

Historians continue to struggle with the conundrum of how Europe, a rather underdeveloped and fractured continent of independent states, eventually expanded to control 35% of the land surface area of the earth by the turn of the nineteenth century. Historians have often cited this rapid growth and expansion of European power as “the rise of the West.” Yet an even greater puzzle is how the inhabitants of the British Isles came to dominate not only most of the New World, but also created an empire far greater than that of Augustus Caesar or Alexander the Great. By 1800, the English stood at the forefront of the European race for global expansion, and their imperial authority was still over a century from reaching its zenith.¹

¹ William H. McNeill, *The Rise of the West: A History of the Human Community* (Chicago: The University of Chicago Press, 1963); Immanuel Wallerstein, *The Modern World-System III: The Second Era of Great Expansion of the Capitalist World-Economy, 1730-1840s* (New York: Academic Press, 1989); John H. Parry, *The Establishment of the European Hegemony 1415-1715*, 3d ed. (New York: Harper and Row, 1966); Douglas C. North and Robert P. Thomas, *The Rise of the Western World* (Cambridge: Cambridge University Press, 1973); Stephan Viljoen, *Economic Systems in World History* (London: Longman, 1974); Pierre Chaunu, *European Expansion in the Later Middle Ages* (Amsterdam: North Holland Publishing Company, 1979); John Ulrich Nef, *War and Human Progress: An Essay on the Rise of Industrial Civilization* (New York: W. W. Norton, 1968). A more recent debate concerning the “rise of the West” centers upon the contribution of military factors. For discussion on “The Military Revolution Debate” and the military organization as an impetus of change, see Richard A. Preston, Sidney F. Wise, and Alex Roland, *Men in Arms: A History of Warfare and Its Interrelationship with Western Society*, 5th rev. ed. (Forth Worth: Holt, Rinehart, and Winston, 1991); Geoffrey Parker, *The Military Revolution: Military innovation and the Rise of the West, 1500-1800*, 2d ed. (Cambridge: Cambridge University Press, 1996); Clifford J. Rogers, ed., *The Military Revolution Debate: Readings on the Military Transformation of Early Modern Europe* (Boulder: Westview Press, 1995). William H. McNeill, *The Pursuit of Power: Technology, Armed Force, and Society since A.D. 1000* (Chicago: The University of Chicago Press, 1982); Paul M. Kennedy, *The Rise and Fall of the Great Powers: Economic Change and Military Conflict from 1500 to 2000* (New York: Random House, 1987); Peter Padfield, *Tides of Empire: Decisive Naval Campaigns in the Rise of the West, 1654-1763*, vol. 2 (London: Routledge and Kegan Paul, 1982).

In its meteoric rise toward economic and military world power, Britain surpassed one of her most important challengers by humbling Spanish authority in the Americas. The purpose of this paper is to answer the question of how England, a relatively late starter in the colonization of the West Indies, overcame an extremely effective Spanish system of colonial defense to become the leading imperial power in the Caribbean basin in little more than a century. The British accomplished this by learning from prior military endeavors and by developing a force projection capability that enabled it to replace Spain as the dominant economic and military hegemon in this vast domain of islands, ocean, and coastal cities. A naval squadron with a small seaborne army could inflict damage upon the economy and prestige of Spain out of all proportion to the forces employed. By 1763, Britain had adopted a geo-strategic vision that viewed economic and military power on a global rather than just a European scale. A comparative study of the campaigns of Cartagena in 1741 and Havana in 1762 provides a model for examining the historical argument posited above.

CHAPTER 1

Spanish Defense and British Power Projection

The traditional historiography pertaining to war between Spain and England assumes that a decadent and far-flung Spanish military yielded to the overwhelming strength of the British Royal Navy; college survey course history texts present these two particular explanations as absolute fact. This interpretation, however, often neglects the defensive capabilities of Spain's colonial empire during the eighteenth century and fails to appreciate the evolutionary changes in British strategic warfare in this same period. Marc-René Montalembert, although a Frenchman and subject of another Bourbon kingdom, voiced an opinion that was openly shared by his British contemporaries:

No other territory [Spanish colonial holdings] is so vulnerable along its whole extent. The Spaniards, with their extraordinary indolence...are inclined to regard their flimsy ramparts as insurmountable obstacles, and they believe that the defenceless sectors of their coastline are sufficiently protected by the adverse climate.²

Admiral Edward Vernon echoed a similar sentiment of English newspapermen and the merchant community when, in 1739, he vigorously asserted to the members of Parliament that Spain was militarily weak and that he could personally capture the coastal city of Porto Bello with merely six ships. By November of that year, Vernon had vindicated all of his boastful claims.³

² Marc-René Montalembert, *La Fortification Perpendiculaire*, vol. 3 (Paris: Philippe-Denys Pierres, 1776-96), 96.

³ Hart, Francis Russell, *Admirals of the Caribbean* (Boston: Houghton Mifflin Company, 1922). 132-3.

This particular operation, however, proved to be an anomaly: the admiral conducted the campaign outside the inhospitable rainy season against a coastal town with only three vulnerable masonry fortifications located directly along the shoreline. The British had bombarded only one of the three forts when the Spanish governor offered to surrender. Vernon failed to realize that elsewhere British soldiers and sailors would face a vastly different situation. In the failed Cartagena campaign of the spring and summer of 1741, Vernon totally discounted Spanish military tenacity when he prodded his army counterpart to attack with statements like, "as every day's experience has shown the Spaniards are an enemy that can't stand being vigorously pushed."⁴ He, along with many other outspoken English chauvinists, did not understand that they faced a formidable Spanish defensive strategy that—as Montalembert noted—had worked well for over two centuries.⁵

⁴ Ranft, B. McL., *Vernon Papers* (Naval Records Society, 1958), 217, Vernon and Ogle to Wentworth, 6 April 1741.

⁵ Admiral Edward Vernon, the British naval commander in the West Indies from 1739-1742, openly voiced his lack of respect for Spanish arms in the Americas. While still serving in Parliament in early 1739, the naval officer vigorously asserted to other members that he could personally capture the coastal city of Porto Bello with merely six ships; he proved true to his word later that year. His victorious campaign against Porto Bello (Panamanian coastal city – see figure 1) gave him a false impression of the Spaniards capabilities and will to fight. Account of the actions at Porto Bello is from Ranft, *Vernon Papers*, 32-44. Vernon was not the only individual to recognize the vulnerability of Porto Bello: in February of 1740, an anonymous map maker rated Porto Bello the third strongest fortified city in the Spanish West Indies behind Havana and Cartagena. With the fortified town positioned along the water's edge, Porto Bello's main defenses remained exposed to the massive firepower of British warships. See Anon., "The Harbour of Puerto Bello," *The Seat of War in the West Indies* (London: G. Foster, 1740). For additional discussion on weakness of shoreline fortifications, see Richard J. Harding, *Amphibious Warfare in the Eighteenth Century: The British Expedition to the West Indies, 1740-1742* (Woodbridge, Great Britain: The Boydell Press, 1991), 166-7. Spain suffered several defeats in the West Indies at the hands of the English and the French in the sixteenth and seventeenth centuries, yet in 1741, they still retained their colonies and continued to exploit the wealth of these lands. The Spanish navy and privateers remained a continual threat to foreign shipping throughout the Caribbean: the vast area was still clearly the domain of the Spaniards. For the longevity of Spanish imperial rule see Christopher Duffy, *The Fortress in the Age of Vauban and Frederick the Great, 1660-1789: Siege Warfare Volume II* (London: Routledge and Kegan Paul, 1985), 261; also see George Earl Sanders, "The Spanish Defense of America, 1700-1763" (Ph.D. diss., University of Southern California, 1974), 5-8.

As Kathleen Wilson has pointed out, however, 18th century English officials often denigrated the Spanish as a way of buttressing their own national prowess. She argues that extra-parliamentary political culture, Whig rhetoric, war, and imperial expansion all contributed to a growing national character and feeling of patriotism among Englishmen. Chauvinism and xenophobia helped to shape what Wilson calls the “imperial imagination.” Although the idea that public or popular opinion alone determined British diplomatic and military policy in Georgian England is a myopic one, it does, however, help to explain how many Britons of this period justified their expansionist ideology in relation to a “weakened” and “effeminate” Spain.⁶

English merchants and gentlemen naval officers naturally proved to be the leading voices in the anti-Bourbon rhetoric since they had the most to gain from Spanish defeat in the West Indies. To these men of influence, a crumbling, yet persistent Spain, stood in the way of England achieving her perceived destiny of expanding economic prosperity and superior government across the Caribbean.⁷ The robust English merchant fleet of the period sought a right to freedom of navigation and unhindered exchange; Spain’s trade restrictions and customs, however, closed most of her American colonies to legitimate English merchants. One writer in the opposition paper, the *Craftsmen*, sought to spur governmental action through its claim that “Spanish Depredations... have so chafed [the people] that They have hardly Patience to wait till our vigilant and wise

⁶ See Kathleen Wilson, *The Sense of the People: Politics, Culture, and Imperialism in England, 1715-1785* (New York: Cambridge University Press, 1995), 137-205. This author also posits a very interesting argument that gender terminology and constructs permeated art, literature, and print, as well as national perceptions and international relations in this early modern era.

⁷ *Gentleman's Magazine*, February 1738, March 1738, and June 1738; Pares, *War and Trade in the West Indies*, 8-58; Anon., *Spanish Insolence Corrected by English Bravery* (London, 1739).

Ministers have made Proper Remonstrances.”⁸ Furthermore, the Spanish practice of searching vessels trading between British dominions and seizing suspected contraband partially justified the English merchant’s grievances. Several of these influential traders even petitioned their king directly for the necessity of “vindicating the honour of your Crown,” and for procuring justice for “the late and repeated insults of the Spaniards upon the persons and properties of your Majesty’s Subjects.”⁹ The British mercantilist community did succeed in convincing the King of the nobleness and justice of their cause. The English administration and commanders actually believed that the local inhabitants would perceive their conquest of the Spanish colonies as a welcome liberation. Britain not only promised greater economic freedom, but deliverance from “oppressions, under which they at present suffer, from the nature and form of the government established in the Spanish Indies.”¹⁰ The Spanish colonials’ inhospitable reception for their new liberators rapidly disabused the British of their hopes for a warm welcome; English chauvinism obscured an honest assessment and understanding of their enemy.

⁸ *Craftsman*, 17 June 1738.

⁹ Petition of the merchants and & c. trading to and interested in the British plantations for part of the Spanish captures, for reparation of their losses, 9 November 1739, Public Record Office (PRO) Colonial Office Papers (CO) 5/5, f. 153D and Petition of the merchants and planters, in behalf of themselves and others trading to and interested in the British colonies in America, 13 October 1737, PRO CO 5/5, f. 145A. Both Prime Minister Robert Walpole and James Waldegrave, the British ambassador to France, resented the merchants submitting these depositions directly to the king. This outside political pressure added to Walpole’s difficulties. Waldegrave even blamed the English traders clandestine trade for causing diplomatic difficulties with Spain. See Harding, *Amphibious Warfare*, 20 and Papers enclosed in Waldegrave to Newcastle, 6 June 1738, PRO State Papers (SP) 78/218, ff. 148-51.

¹⁰ A paper in Spanish written by General Cathcart, relating to the declaration of war against Spain, 1739, PRO CO 5/12, f. 76. Ironically, the British held this same belief when they sailed into several enemy ports in the War of American Independence.

This view of an enervated Bourbon empire in America did not perish with the English dead on the shores of Cartagena; several noted historians of this century have also claimed that Spanish colonial holdings were unprotected. Richard Pares referred to Spain as "the sick man of America" because "Spanish imperialism was attempting too much"; "it was perilous for Spain to take on Britain," echoed J. Leitch Wright, Jr.¹¹ Stressing economic causation for particular power relationships, Immanuel Wallerstein considered England's victory over France in the Western Hemisphere as the pivotal event in the Americas in the eighteenth century. "This fact alone [French defeat]," he wrote, "would be enough to make it impossible for the Spanish...to (re)assert true economic control over their American colonies."¹² Although Spain controlled most of the lands in and around the Caribbean, Wallerstein considered this nation a non-entity in the West Indies: by the eighteenth century, he argued, the French stood as the only serious threat to British rule in the New World. Many naval historians, including Alfred Thayer Mahan, also stressed the decline of Spain in the mid-eighteenth century because they associated military power solely with the size of a nation's navy, particularly the number of ships-of-the-line. Mahan saw "Spain between 1730 and 1740" as "weak" and unable

¹¹ Richard Pares, *War and Trade in the West Indies, 1739-1763* (Oxford: The Clarendon Press, 1936), 1; J. Leitch Wright, Jr., *Anglo-Spanish Rivalry in North America* (Athens, Georgia: University of Georgia Press, 1971), 88.

¹² Immanuel Wallerstein, *The Modern World System III*, 193. The English understandably feared that the Spanish and French might combine their navies for an invasion across the channel; therefore, the threat from the French fleets continually concerned the British politicians and naval commanders. During the War of Jenkin's Ear, however, the French remained neutral; their non-participation isolated the Spanish navy. A similar situation existed during the Havana expedition in 1762. Following Admiral Hawke's victory over the French fleet at Quiberon Bay in 1759, the British virtually isolated the Spanish fleet in the West Indies. For all intents and purposes, the Spanish faced the English forces without their usual ally in both Caribbean operations.

“to guard and effectually seal a sea-coast extending over hundreds of miles with innumerable inlets.”¹³

It is difficult to fault these scholars for denigrating Spanish political and military control within the Caribbean. Their assumptions appear quite logical when examined within the broader context of Spanish economic and political decline. The destruction of the formidable armada in 1588; the repeated bankruptcies and large debt accumulated under Charles V and Philip II; the military and religious quagmire in the Low Countries; the plunder of Spanish treasures at the hands of foreign privateers; and the failure of seventeenth century Spain to create a modern, centralized state all suggest an image of an emasculated empire.¹⁴ Scholars do not stand alone in this perception: one contemporary British minister in Paris noted these exact deficiencies in his assessment of the Spanish system of government in 1742.¹⁵ Difficulties on the Continent did not, however,

¹³ Alfred Thayer Mahan, *The Influence of Sea Power Upon History, 1660-1783* (1890; reprint New York: Dover Publications, Inc., 1987), 251, 246. Mahan was followed by two British naval historians who claimed that the Spanish Empire of the 18th century was ripe for plunder. See Peter Padfield, *Tides of Empire: Decisive Naval Campaigns in the Rise of the West*, vol. 2, 195 and Herbert Richmond, *Statesmen and Sea Power* (Oxford: The Clarendon Press, 1943), 139; *Ibid.*, *The Navy in the War of 1739-48*, vol. 1 (Cambridge: The University Press, 1920), 14-16. Historians must be mindful of factors that influenced the works of many of these writers. Mahan wrote in order to inspire the United States to build-up her navy to achieve her own global empire; the British navy provided him an historical example in order to push his agenda. Pares and Richmond wrote their histories at a time when the United States, Germany, and Japan challenged the supremacy of the British Royal Navy. J. Leitch Wright, Jr. may not have such a pronounced agenda for his work, but his perception is somewhat shaped by his sources: he only used Vernon's papers for his account of Cartagena.

¹⁴ For decline of Spain, see Geoffrey Parker, “David or Goliath? Philip II and his world in the 1580s,” in *Spain, Europe and the Atlantic world: Essays in honour of John Elliott*, ed. Richard L. Kagan and Geoffrey Parker (Cambridge: University Press, 1995), 258-66; John H. Elliott, *Imperial Spain, 1469-1716* (London: Edward Arnold Publishers, Ltd., 1963), 191-203, 222-28, 373-78; Fernand Braudel, *The Mediterranean and the Mediterranean World in the Age of Philip II*, vol. 2 (New York: Harper and Row Publishers, 1973), 1176-8; William H. McNeill, *The Pursuit of Power*, 110-14; Paul Kennedy, *The Rise and Fall of the Great Powers*, xxiii.

¹⁵ Thompson to Newcastle, 16 May 1742, PRO SP 78/227A, ff. 191-2.

necessarily translate into difficulties in the West Indies. Governors and agents of the Crown in the Americas wielded significant military, political, and economic power. In fact, the colonial governors would often take it upon themselves to appropriate funds from the royal treasury for repairing and building fortifications for their particular areas of responsibility. Historian Jeremy Black correctly argues that the Spanish system in the New World maintained a great deal of defensive flexibility.¹⁶ The Caribbean counted for more than just a distant Iberian province caught up in the failings of the mother country.

The Spaniards used a frugal, yet efficient, strategy for colonial defense. Briefly, their method economized forces by relying on the protection of a handful of key military strongholds throughout their vast American empire and maximized the defensive capability of these fixed fortifications by routinely garrisoning them with a small number of acclimatized veterans. During times of crisis, colonial military officials and governors planned to reinforce these strongholds with seamen, local militia, slave labor, and European-based units.¹⁷ As American militia at Boston and Indians of the Mosquito Shore would later demonstrate, irregular forces could fight regular soldiers effectively when behind protection or using guerrilla tactics in tropical forests. The Spanish understood the value of fortifications; these structures enabled them to maintain a fairly small force in being in America. Although Italian engineers had laid down the principles of a 'new' style of fortification in the 16th century, these same ideas still held true in the 18th. In a

¹⁶ Rodolfo Segovia Salas, *The Fortifications of Cartagena de Indias: Strategy and History* (Bogota: Carlos Valencia Editores, 1982), 21; Jeremy Black, *European Warfare, 1660-1815* (New Haven: Yale University Press, 1994), 28-29.

¹⁷ The key Spanish strongholds of the time included San Augustin, Porto Bello, Havana, Cartagena, and Vera Cruz.

period of European history when the ideas of Sébastien Le Prestre de Vauban and Menno van Coehoorn significantly influenced the conduct of military operations, Spanish colonial authorities employed the principles of these military engineers through dependence on walled fortifications, lengthy sieges, harsh climate, and devastating diseases to defeat an attacking force. Plus, the Spaniards understood that the attacker possessed an additional detriment of maintaining tenuous and limited naval supply lines for both land and sea forces. A small number of English officials did recognize the potential difficulties in overcoming these New World hazards; one British diplomat, for example, offered this prophetic warning:

As to Conquests, few are the Countries in Spanish America upon which an English Squadron can make any considerable impression. One reason is, that on the Coasts of the North Sea there are but a few Ports of importance, and those well fortified, and difficult to be surprised, such as the Fortress of St. John D'Ulva at Vera Cruz, the Havana, Carthagena, Portobello & Another is, that the principal richness and Strength of the Spaniards are within the Country, in which they can assemble with ease abundance of Militia on foot and on horse back, born in & accustomed to the Climate & to the manner of life of the Country, and therefore better for the defence of it than European regular Troops, which are only good to defend the fortified Towns in that Country...[the English] run a risk of perishing with hunger and misery...and after having lived a few days streightened in that manner, and exposed to a Climate fatal to Europeans, diseases will bring a greater destruction upon them than that which befell the English at the last blockade of Portobello in the year 1626 [actually in 1726—Admiral Hosier's disastrous expedition].¹⁸

To criticize the Spanish methods is to fail to appreciate the many benefits from the marriage of the accepted methods of contemporary European warfare to Caribbean geography, demography, and climate. As the Prussian officer and military theorist Carl von Clausewitz later wrote, "the country—its physical features and population—is more

¹⁸ Papers enclosed in Waldegrave to Newcastle, 6 June 1738, PRO SP 78/218, f. 51.

than just the source of all armed forces proper; it is in itself an integral element among the factors at work in war.”¹⁹

Faulting Spanish decadence is only half of the usual historiographical justification for British victory in the Caribbean. Before his attack on Porto Bello, Vernon reminded the influential Secretary of State, the Duke of Newcastle, that he expected the navy alone to bring Spain to peace; to this maritime commander, the army remained irrelevant in an expanse of ocean, islands, and shorelines.²⁰ Others in the British administration of 1738 maintained greater expectations for their fleet than even Vernon:

Your excellency must know that my opinion is that the greatest Treasure of the Crown of England is the credit of her Naval power; and this does not consist only in her Dominion at Sea, because her Naval Forces are greater and better than those of any other Crown, but that the World believes that these Forces are able not only to engage the Naval Forces of other Crowns, but to annoy the adverse Powers in such a manner, as to oblige & force the same to sue for peace with England.²¹

Modern historians have often agreed with these extreme contemporary views. Like Mahan, many British and American historians give the Royal Navy sole credit for English colonial supremacy in the West Indies. In his book *Navy and Empire*, James L. Stokesbury places the laurels of British victory solely upon the capabilities of His Majesty's Ships, while Christopher Lloyd typified this naval-biased historical interpretation when he wrote: "In the era of expansion, the Navy, with or without the

¹⁹ Carl von Clausewitz, *On War*, ed. and trans. Michael Howard and Peter Paret (1832; new trans. Princeton: Princeton University Press, 1984), 79.

²⁰ Beatson, *Naval and Military Memoirs of Great Britain from 1727-1783*, vol. 1 (Boston: Gregg Press, 1972), 44-45.

²¹ Intelligence report in Waldegrave to Newcastle, 2 July 1738, PRO SP 78/218, ff. 268-9.

Army, was the force used to gain trade and colonies from the Dutch, the Spanish, and the French.”²²

Undoubtedly, the British Royal Navy was an essential factor in the growth of the empire and the subsequent period of *Pax Britannica*, but it did not and could not act alone in the Caribbean. Robert Walpole, the British Prime Minister in 1739, understood the necessity of using combined operations. He put the matter this way: “It is true our navy is much superior to theirs, but by a navy alone we cannot propose to force them to peace. We must attack them on land at some place or other, and for that purpose we must have sufficient land force.”²³ To succeed in the Caribbean, the English crown had to commit combined forces capable of traveling immense distances, striking quickly, and wielding overwhelming combat power. As British officers and government officials learned, these difficult operations required a great deal of inter-service cooperation, new equipment, and new techniques of warfare, military experience, and a willingness to endure significant casualties.

Sir Julian S. Corbett’s, *England in the Seven Year’s War: A Study in Combined Strategy*, was one of the first strategic surveys of an eighteenth century war to consider seriously the use of combined forces, although it failed to grasp fully the idea of power projection. Corbett’s book is predominately a study of how maritime strategy related to

²² James L. Stokesbury, *Navy and Empire* (New York: William Morrow and Company, 1983), 177; Julian S. Corbett, *England in the Seven Year’s War: A Study in Combined Strategy*, 2 vols. (New York: Longmans, Green, and Co., 1907), v; Christopher Lloyd, *The Nation and the Navy: A History of Naval Life and Policy* (London: The Cresset Press, 1961), vii. See also John Robert McNeill, *Atlantic Empires of France and Spain: Louisbourg and Havana, 1700-1763* (Chapel Hill: The University of North Carolina Press, 1985), 7.

²³ Walpole quoted in Richmond, *Statesmen and Sea Power*, 113.

diplomacy. In his analysis of the war, Corbett sees the army (and marines) as just an appendage of the navy.²⁴ The Royal Navy, cooperating with the land forces in conducting littoral warfare, was extremely important in the geopolitical changes of the eighteenth century. The well-trained and well-led naval forces provided the British with the capability of a global strategy, but the mutual cooperation with land forces gave the navy its offensive flexibility against Spanish fortifications. Most historians, however, fail to identify the deeper trends and transformations in British force projection that occurred during this period.

Thomas More Molyneux, an Army officer writing a military treatise dedicated to the Prince of Wales, later King George III, realized as early as 1759 that the Royal Navy's superiority at sea allowed Britain to adopt a completely new type of strategy in America.²⁵ He noted that previous British failures in this type of littoral war were due to the inflexibility of the army. Molyneux claimed that "the great Failing on the side of the English, in this Affair, seems owing to their want of making a right Distinction between the Littoral and established Continental War."²⁶ The army and its policy makers did not have a "Right understanding [of] this Amphibious Kind of Warfare," but they failed "from their having had their Attention, War after War too much dazzled with the glare

²⁴ Corbett, v, 1-9.

²⁵ Molyneux most likely had a political agenda for writing this book. The Prince of Wales, destined to become King George III of England, opposed major land operations on the European continent. As the first Georgian ruler not born in Hanover, the future king felt that English interests could best be served outside the entanglements of continental wars.

²⁶ Molyneux, *Conjunct Expeditions*, part 1, 249. Molyneux defines a Littoral War as one "which in its Nature partakes of both Sea and Land." This author makes very little distinction between amphibious and littoral warfare. See Thomas More Molyneux, *Conjunct Expeditions* (London: R. and J. Dodsley, 1759), part 1, iii; part 2, 8.

and sound of large Armies and continental Campaigns.”²⁷ Molyneux’s studies of numerous amphibious operations, from the Roman invasion of England to the British landing at Rochefort in 1758, revealed two essential aspects of littoral war: “the Advantage of...surprise” and “proportion[ing] our Forces, according to the Size of the Object.”²⁸ He deemed these factors essential for success.

According to Molyneux and a growing number of British military and political officials of the mid-18th century, combined operations on the coast of France rarely succeeded in creating military or psychological diversions. Littoral warfare in the West Indies, however, retained the advantage of utilizing the British naval superiority and also the likely possibility of gaining economic wealth and bargaining chips during peace negotiations. While British officials rarely refused to send troops to fight on the Continent during wars of the 18th century, they increasingly realized that the overseas and European theaters of war remained critically linked. This ability to see beyond the limits of Europe and maintain a geo-strategic overall view forced the British to attain a true intercontinental management system for managing long distance combined operations.²⁹ To succeed, the British worldwide strategy had to overcome not only man-made obstacles, but also numerous natural barriers. The latter often proved to be the more formidable.

Fernand Braudel clearly understood the impact of oceanic geography upon human endeavors and vice-versa. In his work on the Mediterranean he wrote, “we shall of

²⁷ Ibid., part 2, 8; part 1, 2.

²⁸ Ibid., part 1, 251; part 2, 9.

²⁹ Richard Middleton, *The Bells of Victory: The Pitt-Newcastle Ministry and the Conduct of the Seven Years' War, 1757-1762* (Cambridge: Cambridge University Press, 1985), 148; Christian Buchet, “The Royal Navy and the Caribbean, 1689-1763,” *The Mariner's Mirror* 80, no. 1 (February 1994): 32.

course have to measure these expanses of water in relation to human activity; their history would otherwise be incomprehensible if indeed it could be written at all.”³⁰ This same statement readily applies to an even larger body of water than that which the French writer so vividly described. Unlike the relatively mild nature of the much smaller Mediterranean Sea, the more turbulent Caribbean stretches 2,700 miles from Trinidad to the westernmost point in the Gulf of Mexico along a width that varies from 400 to 700 miles.³¹ Furthermore, the Europeans trying to reach the islands of the tropical sea had to endure a lengthy trip across the tumultuous North Atlantic before ever entering the sultry Caribbean climate. Their trials, successes, and failures, along with those of the indigenous population and the African transplants, helped to define the history of this expanse of open sea, tiny islands, and continental coastlines.

Once in this sea of some 600,000 square miles, English mariners, sailors and merchants struggled to gain naval supremacy, advantageous colonial possessions, and control of trade. The French, Dutch, and Spanish forces in the Caribbean provided only part of the opposition to the British global strategy; nature took the greatest number of Englishmen. One must not lose sight of the Herculean task that faced the British political and military leaders in carrying out their ability to project power. Even in today’s world of mechanically driven steel hulled ships, enormous jet powered cargo planes, and large political and military bureaucracies, armed forces still struggle against nature to deploy large bodies of troops around the globe. History, particularly operational military history,

³⁰ Fernand Braudel, *The Mediterranean and the Mediterranean World in the Age of Philip II*, vol. 1 (Berkeley: The University of California Press, 1995), 103.

³¹ W. Adolphe Roberts, *The Caribbean: The Story of Our Sea of Destiny* (Indianapolis: The Bobbs-Merrill Company, 1940), 14.

is inseparable from geography. The level of eighteenth century naval technology, the seamanship of the sailors, the power of wind, and the expanse of the Caribbean Sea determined, to a great extent, the character of military operations in this region of the New World. In vast and isolated locations of the West Indies, the British had the ability to strike an unsuspecting enemy by quickly achieving local superiority in both firepower and manpower. This, in a very basic way, was the essence of geo-strategic force projection. Yet the concept, so new to the global political and military strategies of the Europeans, took decades for the British politicians and officers to refine. Failure and success played a major role in the overall learning process.³²

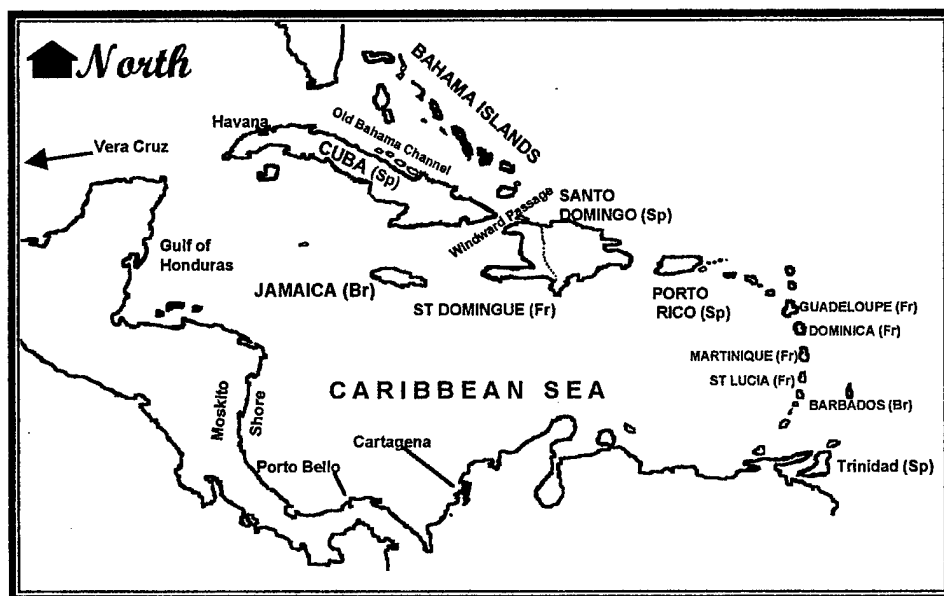


Figure 1.1 - The West Indies about 1750³³

³² Alan Burns, *History of the British West Indies* (London: George Allen & Unwin LTD, 1954), 24.

³³ General sketch and map information from Anon., "A Map or Chart of the West Indies, drawn from the best Spanish Maps, and regulated by Astronomical Observations," *The Seat of War in the West Indies*; Harding, *Amphibious Warfare*, Appendix 2, Map 1; Cyril Hamshire, *The British in the Caribbean* (London: Weidenfeld and Nicolson, 1972), 187; Pares, *War and Trade in the West Indies*, Map facing 632.

The strength of the Spanish system in the West Indies, and the eventual force projection methods that the British developed to overcome it, emerge clearly from a comparison of two Caribbean campaigns that shared many characteristics yet ended very differently: the siege of Cartagena in the War of Jenkin's Ear (1739-1740) and the siege of Havana in the Seven Year's War (1756-1763).³⁴ While the British conducted numerous combined operations in the West Indies during the 18th century, these two campaigns provide the best examples. For the English military forces, the attacks against Barbados (1759), Martinique (1762), and Saint Domingue (1793) proved to be relatively easy victories: only at Martinique did the British face somewhat serious French resistance. Despite the fact that these three littoral operations further demonstrate the British ability to project force in this region and eventually around the globe, they fail to provide an adequate understanding of the British system of warfare when compared to attacks against a more determined foe. Furthermore, as operations involving only French and British forces, these three military engagements obviously do not demonstrate the Spaniards' strategy of West Indian defense—a much more formidable system in this intemperate climate. Hurricanes, tropical storms, extreme heat, and devastating diseases ravaged the ranks of the European invaders and settlers in the Caribbean. As these two cases and several other military expeditions of the time demonstrate, warfare in this specific theater differed greatly from military operations on the European continent or in

³⁴ The War of Jenkin's Ear did not actually end in 1740, but was absorbed as part of a larger war known as the War of Austrian succession. This war lasted until 1748. See Reed Browning, *The War of the Austrian Succession* (New York: St. Martin's Griffin, 1995), 26-30, 58-61.

the Far East. These campaigns required much inter-service cooperation, extensive logistical requirements by land and sea, a technical knowledge of siege operations, and a need for rapid victory in order to avoid the ravages of tropical diseases. The armies of the Enlightenment fought and died by different rules in the New World.

CHAPTER 2

Case Study I – The Siege of Cartagena

2.1 The Geography

Spain founded Cartagena, a city located on the coast of present day Colombia, as a military town in 1533 (figure 1.1). Spanish kings used the town as a transportation funnel: government officials and merchants gathered crown silver and goods of trade within its port and then dispatched the precious cargoes to Europe via Havana. This key harbor also served as a critical junction in the Spanish slave trade into the New World. The town itself sat on the north end of a large protected lagoon on an island connected to the mainland by a small bridge northeast of the town at La Boquilla (not shown in figure 2.1). A direct attack on the town from the sea was impossible since the shallow coastal shelf extended out several miles from the city walls; enemy warships could not sail close enough to the town to effectively employ their floating firepower. In fact, one seventeenth-century French naval officer noted that “the sea on the coast of Cartagena [the city proper] is an invincible foe.”³⁵ The Bay of Cartagena, composed of an inner and outer bay and a lagoon northeast of the town, connected to the Atlantic through two inlets: Boca Chica and Boca Grande. By the mid-eighteenth century, the Boca Grande was no longer a land bridge to Tierra Bomba but an extremely shallow inlet that

³⁵ Jean Bernard Louis Desjean, Baron de Pointis; quoted in Salas, *The Fortifications of Cartagena de Indias*, 18.

prevented the passage of large, deep draft ships. Large warships could only enter the bay through the Boca Chica. The land area to the north and east of the bay contained dense vegetation and extremely marshy terrain. The high water table around the city did not permit extensive digging or sapping. Like virtually all areas in the Spanish Indies, Cartagena had as constant companions extreme heat, humidity, and disease. It was obvious from its environmental features alone that the city and its surroundings naturally favored the more acclimated defender.³⁶

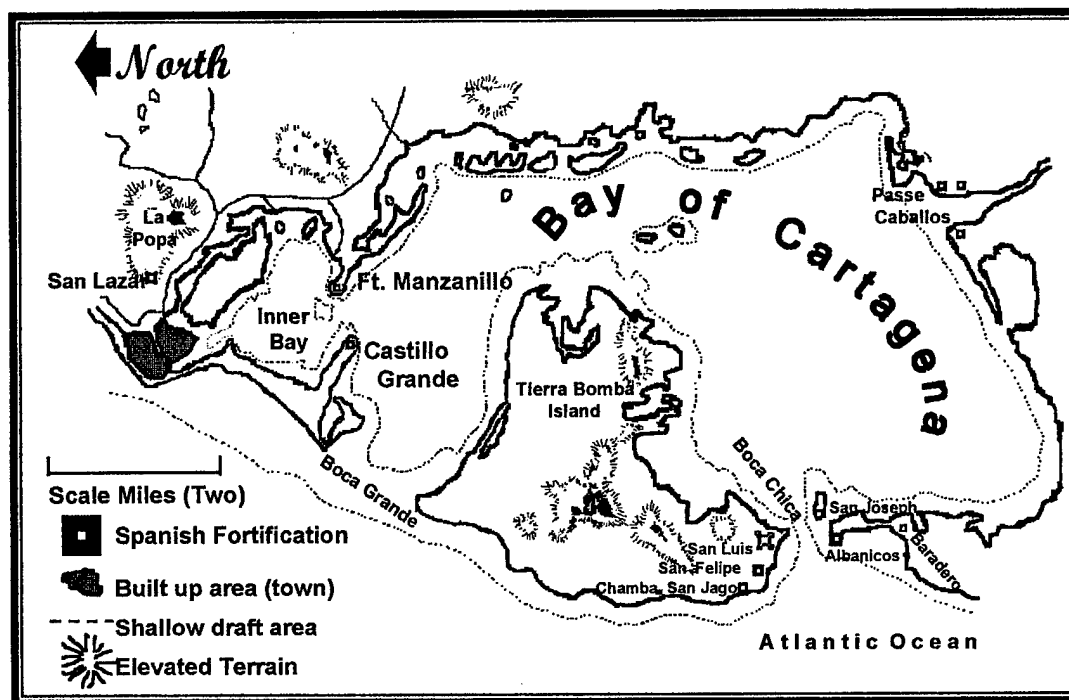


Figure 2.1 - Cartagena in 1741³⁷

³⁶ Anon., *An Account of the Severall Ports belonging to the Spaniards in America*, undated [1720-24?], PRO CO 5/12, ff. 8-9; Salas, *The Fortifications of Cartagena de Indias*, 1-20; Harding, *Amphibious Warfare*, 93-97; Roberts, *The Caribbean*, 54, 100, 213-217.

³⁷ General sketch of map from Harding, *Amphibious Warfare*, Appendix 2, Map 3; Corbett, *The Navy in the War of 1739-48*, vol. 1 (London: Cambridge University Press, 1920), 112a; Fortescue, *A History of the British Army*, vol. 2, 78a.

After the city suffered a devastating attack by Francis Drake in 1586, Philip II dispatched the Italian military engineer Giovanni Battista (Bautista) Antonelli to begin designing and constructing fortifications. Antonelli, who did a great deal of work in the New World at the end of the sixteenth century, was the first of a succession of engineers to supervise the improvement of fortifications of this strategic port city. Unlike the older style fortifications and city walls that Martin Cote, John Hawkins, Francis Drake and Henry Morgan overcame with their mobs of privateers, buccaneers, and colonial swashbucklers, Admirals Jean Desjean (Baron de Pointis), Jean Baptiste du Casse, Francis Hosier, Charles Wager, Edward Vernon, Charles Knowles, and George Pocock faced a much more formidable style of fortification known as the *trace italienne*. This Italian based system of military architectural design significantly changed the methods of warfare in Europe and also in the colonial possessions shortly thereafter. As Geoffrey Parker argues in *The Military Revolution*, the *trace italienne* style of fortification helped to 'revolutionize' warfare in the 16th century by creating "a defensive system which was more or less impervious to attack."³⁸ These forts of lower, thicker walls and mutually supporting bastions required attackers to undertake extensive sieges. With his arrival in the New World in the 1580s, Antonelli was the first of many Spanish paid engineers to refine and improve upon the established colonial fortifications with his knowledge of the new architectural designs. Over the next two hundred years, the Spanish added outlying rings of forts, batteries, and redoubts while reinforcing the older defensive works closer to the town. While not as geometrically complex as many of the European bastions of the day, the Spanish fortifications complimented the natural impedance caused by the

³⁸ Parker, *The Military Revolution*, 6.

tropical climate and vegetation and proved extremely effective against attackers of the 17th and 18th centuries hopeful of repeating Drake's stunning successes.³⁹

By 1740, the land and water approaches to the city were well protected (figure 2.1). A series of fortifications protected the Boca Chica inlet while Fort San Lazar (Lázaro) and the commanding hill of La Popa blocked the land route to the city from the east. Fort Manzanillo and Castillo Grande covered the opening of the small inlet bay closest to Cartagena. As a final measure of protection, the Spanish defenders utilized the natural salt-water 'moat' and the original wall that surrounded the city proper. Altogether, this chain of defenses created an extensive and formidable system of obstacles difficult for any attacker to overcome.⁴⁰

As Vernon discovered at Porto Bello nearly two years earlier, however, seaside forts and batteries, like those near Boca Chica, were extremely vulnerable to the firepower of larger British warships carrying heavy cannon. Due to improvements made in battleship design, cast iron guns, naval gun carriages, and the on-board reloading system during the seventeenth and early 18th centuries, large European ships-of-the-line

³⁹ Ibid., 12-13, 104. The Baron de Pointis of France conducted the first formal siege of Cartagena in late April and early May of 1697. Despite the rapid siege and hasty Spanish surrender, the French forces lost nearly one fifth of all their forces to sickness. See Hart, *Admirals of the Caribbean*, 113-126 and David F. Marley, *Wars of the Americas: A Chronology of the Armed Conflict in the New World, 1492 to the Present* (Santa Barbara, California: ABC-CLIO, Inc., 1998), 212-215.

⁴⁰ The description of the geographical features of the city and its fortifications is based upon the following sources: Anon., *A Geographical and Historical Description of the Principal Objects of the present war in the West-Indies viz. Cartagena, Puerto Bello, La Vera Cruz, The Havana, and San Augustin shewing their Situation, Strength, Trade, & c.* (London: T. Gardner, 1741), 1-69; Rodolfo Segovia Salas, *The Fortifications of Cartagena de Indias: Strategy and History* (Bogota: Carlos Valencia Editores, 1982), 1-32; Harding, *Amphibious Warfare*, 93-97; Roberts, *The Caribbean*, 54, 100, 213-217; J. W. Fortescue., *A History of the British Army*, vol. 2 (London: Macmillan and Co., 1935), 63-79. Spain, "Diario de todo lo ocurrido en la expugnacion de las fuertes de Bocachica, y sitio de la ciudad de Cartegena de las Indias (1741)," *Spain Under the Bourbons, 1700-1833: A Collection of Documents*, ed. W.N. Hargreaves-Mawdsley (Columbia, South Carolina: University of South Carolina Press, 1973), 100-106; Ranft, *Vernon Papers*, 51-52, Account of the Fortresses at Cartagena by Mr. Patrick Burn, January 1740.

were able to bring immense broadside firepower upon enemy ships and coastal fortifications. The beachfront redoubts of Chamba, San Jago (Santiago), and San Felipe were small and hastily prepared defensive positions. In Cartagena, these vulnerable coastal defenses still served several purposes: probably the greatest asset these smaller shoreline forts provided was to make sure that the Boca Chica could not be surprised and to delay enemy forces hoping to attack Fort San Luis and thereby gain access to the harbor.⁴¹

2.2 Planning and Preparation

In December of 1739, the British ministry under Prime Minister Sir Robert Walpole and the Duke of Newcastle, Secretary of State for the Southern Department decided to amass a combined British and American force of over 10,000 in Jamaica as quickly as possible; the ministers had concluded that Havana or Cartagena were the most desirable objectives, but they elected to allow the West Indian military commanders to choose the exact target in a council of war.⁴² Although the Walpole-Newcastle ministry failed to specify the exact point of attack, Vernon's aggressive actions against Cartagena in the following year made it the choice by default.⁴³ From October 1739 to January

⁴¹ As Lord Albemarle learned at Havana, the heavy ship cannon, when dragged on shore, proved extremely effective as siege artillery. For improvements on ship and fire control design, see N.A.M. Rodger, *The Safeguard of the Sea: A Naval History of Britain, 600-1649* (New York: W. W. Norton & Company, 1998), 389-390; Mark G. McLaughlin, "History, Early Modern Military." *Brassey's Encyclopedia of Military History and Biography*, ed. Franklin D. Margiotta (Washington: Brassey's, 1994), 460-1; N.A.M. Rodger, "The Development of Broadside Gunnery, 1450-1650," *The Mariner's Mirror* 83, no. 2 (August 1996), 301-324.

⁴² Havana, Vera Cruz, Porto Bello, and Cartagena were the main Spanish ports in the West Indies at this time. Vernon had already disabled Porto Bello leaving three remaining objectives open to British attack.

⁴³ Harding, *Amphibious Warfare*, 16-32, 80; Richmond, *The Navy in the War of 1739-48*, 34-35. The British officers did hold a council of war in February of 1741 and unanimously decided to attack Cartagena. This was, however, just a formality as Vernon had made no real preparation for attacking any other port.

1740, Vernon dispatched four reconnaissance expeditions to the coast of Cartagena.⁴⁴

While sacrificing tactical and strategic surprise, Vernon gained a very detailed picture of the port. For eleven days in March and April 1740, he personally joined a naval reconnaissance-by-fire against the fortifications around Cartagena. After this expedition, the admiral informed the First Lord of the Admiralty that "I coasted their shore...and I think I now know as much of the avenues to their harbour as they do themselves."⁴⁵

Nevertheless, unlike the inhabitants of Porto Bello, who in 1739 were unaware that Britain had declared war before Vernon attacked, the defenders of Cartagena two years later were forewarned and well prepared.

Since the British declaration of war in October of 1739, the Spanish military officials in both the West Indies and in Europe had not remained idle as Britain prepared for offensive operations overseas: the Spaniards dispatched "four thousand of the best Land Forces in Spain" and warships from the mother country, mobilized local militia, and hastily improved their fortifications.⁴⁶ Vernon's rapid capture of Porto Bello provided an additional impetus to the defenders of other Spanish port towns in the New World. The Spanish, unlike Admiral Vernon, learned valuable lessons from the

See Ranft, *Vernon Papers*, 174, Draft Resolutions of a Council of War held on board the 'Princess Carolina,' 16 February 1741.

⁴⁴ Ranft, *The Vernon Papers*, 28-29, Order to Lieutenant Francis Perceval, 19 October 1739; Order to Captain Stapleton, 6 November 1739, 30-31; Order to Captain Knowles, 11 December 1739, 45-46; Order to Captain Douglas, December 1739, 49; Order to Captain Watson, January 1740, 50-51. Vernon also received detailed intelligence of Cartagena from a Mr. Patrick Burn.

⁴⁵ Ibid., Vernon to Sir Charles Wager, 5 April 1740, 81.

⁴⁶ Lord Elibank, A Journal of the Expedition that Sailed from Spithead to the West Indies under the Command of the Right Hon^{ble} the Lord Cathcart in the Month of October 1740, 5 April 1741, PRO CO 5/41, f. 311.

Cartagena campaign of the Baron de Pointis in 1697.⁴⁷ Following the French attack, the military engineer Juan de Herrera y Sotomayor left Europe for a new assignment in Spanish America. By his death in 1732, he had rebuilt the city and significantly improved the defenses of Cartagena. First of all, the Boca Grande inlet replaced the isthmus road that previously connected the town to Tierra Bomba Island; this geographic alteration cut off an important avenue of approach to the city (figure 2.1). Herrera y Sotomayor then enhanced Cartagena's defenses by adding the three fortified works of San Jago, San Felipe, and San Joseph. Furthermore, the Spanish wisely entrusted the protection of the city to two very capable and experienced military officers: the new Viceroy and Captain General Don Sebastián de Eslava and the gallant naval officer Don Blas de Lezo.⁴⁸ Additional preparations by the defenders included constructing three battery positions and a floating chain to further enhance the Boca Chica fortifications. Spies and local merchants in the area also provided substantial forewarning of British movements and plans. This intelligence advantage also allowed the Spanish time to anchor three men-of-war near Fort San Luis to cover both the harbor opening and the

⁴⁷ Vernon was intimately familiar with De Pointis' attack on Cartagena. Vernon's plan for the attack on Cartagena, including the army's actual landing site, followed De Pointis' operation virtually step for step. His lack of ingenuity in planning added very little to the British ability to gain any type of tactical or operational surprise. The fact that De Pointis took Cartagena and not Havana may have given Vernon a certain level of comfort in choosing this particular city as the site for this major operation. Ranft, *Vernon Papers*, 57-8, Vernon to Sir Charles Wager, 18-31 January 1740; 182, Vernon's Orders to Sir Chaloner Ogle for the Attack on Cartagena, 6 March 1741; 218, Vernon and Sir Chaloner Ogle to General Wentworth, 7 April 1741; and Lord Elibank, A Journal of the Expedition that Sailed from Spithead to the West Indies 5 April 1741, PRO CO 5/41, f. 301.

⁴⁸ Julián de Zulueta, "Health and Military Factors in Vernon's Failure at Cartagena," *The Mariner's Mirror* 78, no. 2 (May 1992), 133-7; Lord Elibank, A Journal of the Expedition that Sailed from Spithead to the West Indies, 5 April 1741, PRO CO 5/41, f. 302.

land approaches to the forts just prior to the attack.⁴⁹ Yet, when the enemy expedition arrived off Cartagena, the Spanish were still thoroughly surprised by the British ability to threaten their distant colony with such an immense force.⁵⁰

Getting the ships, men, and supplies to Cartagena proved to be a long and arduous task. According to war plans, the British ministers dispatched a formidable squadron under Rear-Admiral Sir Chaloner Ogle and a large body of land forces under Lord Charles Cathcart to Jamaica to join Vernon for an amphibious attack upon a site agreed to by both the land and naval commanders. Although Newcastle strongly favored an attack against Havana, Vernon had set his mind on taking Cartagena and, as noted above, committed the British to his plan by beginning preliminary operations against the coastal city.⁵¹ The only requirement Vernon deemed necessary to secure Jamaica against attack and begin aggressive offensive actions against the Spanish was an additional fleet and a small army; he eventually got both.⁵²

For this expedition, the Walpole-Newcastle administration sought assistance from British subjects overseas; this was the first time that British officials had ever asked their American subjects to support a large-scale military campaign in the West Indies. The

⁴⁹ Hayter, Tony, "The Army and the First British Empire," *Oxford Illustrated History of the British Army*, ed. David Chandler (Oxford: The University Press, 1994), 113; Richmond, *The Navy in the War of 1739-48*, vol. 1, 34-35.

⁵⁰ Spain, "*Diario de todo lo ocurrido en la expugnacion*," 100, 105.

⁵¹ Vernon and Wentworth virtually convinced Lord Cathcart of the prudence in attacking Cartagena and not Havana before the army commander's ship left the English coast. See Cathcart to Newcastle, 27 August 1740, CO 5/41, f. 126 and Ranft, *Vernon Papers*, 127-8, Vernon to Lord Cathcart, 21 September, 1740.

⁵² Vernon to Newcastle, 31 October 1739, PRO SP 42/85, ff. 29-30.

government requested that four thousand troops from the colonies join the six thousand troops from England, mostly newly recruited marines, to battle the Spanish in the Caribbean. Facing the slight possibility of a French or Spanish incursion against the British Isles, the administration was only willing to dispatch two regiments of regular troops for the expedition; this decision forced the ministry to raise a fresh body of marines solely for the campaign.⁵³ The British ministry and the North American colonial governments took almost a year to raise, equip, and move their land forces to the rendezvous site in Jamaica. Recruiting, training, supplying, and amassing this trans-Atlantic force required a great deal of planning and coordination. The first colonial recruits, the Rhode Islanders, set sail on September 13. After a stop in New York and Hampton to pick up the additional North American forces, the transports finally weighed anchor for Jamaica on October 24. The force of colonials, minus four North Carolina regiments that sailed a short time later, arrived in Jamaica twenty-two days later.⁵⁴

By the time the large reinforcement contingent from England joined Vernon and the North American colonists in Jamaica on January 9, 1741, the wet season was only six months away. Even in these more salubrious winter months, the British received their first indication of things to come: many of the waiting Americans, not acclimated to the

⁵³ Admiral Sir Herbert Richmond blamed the English government's persistent neglect of the army as the main factor for the yearlong delay. He argues that a sufficient land force for expeditionary purposes did not exist when officials in Whitehall decided to attack the Spanish in America. See Richmond, *Statesmen and Sea Power*, 113.

tropical conditions of the Caribbean, became sick. Extreme heat, lack of food, and the rigors of the naval voyage enervated the impatient colonials. Vernon's experience with Caribbean operations taught him that he needed to use his growing force before losing it to the ravages of disease and a climate inhospitable to most Europeans.⁵⁵ To make matters worse, 484 men, including Lord Cathcart died on the lengthy voyage from England. Cathcart's replacement, Brigadier General Thomas Wentworth, was a less influential and capable commander than his predecessor. "His want of experience" and lack of expertise in complex military operations did not go unnoticed by others.⁵⁶ Vernon, the resident expert and an outspoken politician, had little problem convincing the army's third-in-command of the validity of his ideas concerning Cartagena.⁵⁷ Until Wentworth gained personal confidence and the respect of others, the recently victorious admiral remained the *de facto* commander for the overall operation; however, the attack on Cartagena would not going solely a naval operation like the 1739 attack on Porto Bello. This attack would require extensive cooperation and coordination.

⁵⁴ Cathcart to Newcastle, 27 August 1740, PRO CO 5/41, ff. 126-127; Beatson, *Naval and Military Memoirs*, 59; Albert Harkness Jr., "Americanism and Jenkins' Ear," *The Mississippi Valley Historical Review* 37 (June 1950) 62-73.

⁵⁵ Vernon gained a great deal of experience in the Caribbean during the War of Spanish Succession (Queen Anne's War) from 1702-1713. See David F. Marley, *Wars of the Americas*, 235 and Hart, *Admirals of the Caribbean*, 133.

⁵⁶ Colonel Daniel to Duke of Montagu, 27 March 1741, PRO CO 5/41, f. 271.

⁵⁷ Major General Alexander Spotswood, the former governor of Virginia, quartermaster general for the entire operation, and colonel of the North American Regiment should have followed Cathcart in succession of command. Like Cathcart, Spotswood died before the expedition got underway. Instructions to our Trusty and Welbeloved Alexander Spotswood Esqr. Major General of our Forces, 2 April 1740, PRO CO 318/3, ff. 252-3 and Blakeney to Newcastle, 25 June 1740, PRO CO 5/41, f. 90.

2.3 The Attack

The crowded transports and escorting warships, one hundred and twenty four vessels in all, finally departed from Jamaica on February 25th, and by March 4th, the fleet anchored off the coast of Cartagena. The British got off to a good start by rapidly reducing the outer fortifications guarding the Boca Chica (figure 2.2). One observer noted, "it is surprising how soon the men of war made these places too hot for men to live in."⁵⁸ After the naval forces destroyed the three exposed beachfront batteries, the army moved inland to destroy the remaining defensive structures guarding the small inlet. General Wentworth, most likely still unsure of himself as the new land force commander, insisted on clearing land and building his camp before proceeding with the siege of San Luis. The British army's commanding officer exacerbated his men's difficulties by "having made [a] choice of a very improper Place to encamp in;" the Spanish quickly capitalized on Wentworth's mistake.⁵⁹ Militarily, the operation moved rather smoothly; however, the deliberate actions of the British and the accurate harassment fire from the Spanish gunners of San Luis consumed the attackers' precious time and caused significant casualties among Wentworth's force. While Vernon criticized the land commander's methodical methods, Wentworth's actions clearly reflected the understood rules of European siege warfare.

⁵⁸ Lord Elibank, *A Journal of the Expedition that Sailed from Spithead to the West Indies*, 5 April 1741, PRO CO 5/41, f. 302.

⁵⁹ *Ibid.*, f. 306.

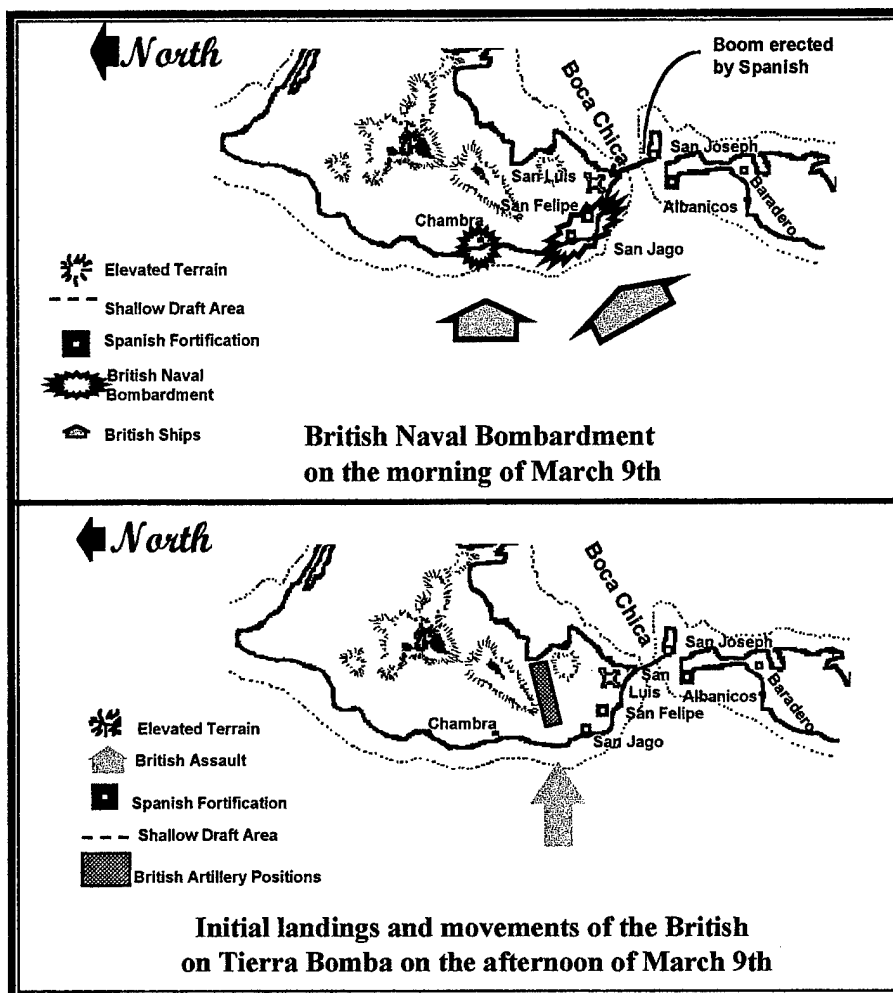


Figure 2.2 - Initial British success during assault⁶⁰

The impatient Admiral Vernon, backed by his fellow naval officer, Admiral Sir Chaloner Ogle, urged Wentworth forward. "As we are best acquainted with this intemperate climate, we think it our duty to advise your pursuing more vigorous measures as most conducive to the preservation of your mens' lives from the ravages of sickness."⁶¹ Vernon, from the safety of his ship, prodded his counterpart forward and

⁶⁰ Harding, *Amphibious Warfare*, Appendix 2, Map 3.

⁶¹ Ranft, *Vernon Papers*, 203, Vernon, Sir Chaloner Ogle and Commodore Lestock to General Wentworth, 25 March 1741. Wentworth did not have to be reminded to hurry. He was thoroughly aware of the

attempted to inspire him to attack "the paltry castle of Boca Chica" with such words of encouragement as, "the Enemy will not stand the native Courage of our Men when we can come to hands with them."⁶² Vernon's harassing comments obviously did not sit well with the land force commander. The contemptuous and patronizing tone of the admiral's words undoubtedly created greater animosity between the two military leaders. What the British naval officers could not appreciate, however, was the dogged resistance and "the Skill of the Enemy in pointing their Canon en Recochete."⁶³ The soldiers in San Luis (Boca Chica), mostly well-trained regulars, served under the direct command of the very competent Chief Military Engineer of Cartagena, Don Carlos Desnaux. This officer, in turn, served under the command of Lezo, who floated nearby Fort San Luis with his four ships and provided supporting fires for the soldiers. Desnaux and his men withstood four days of intense bombardment from a land battery of twenty twenty-four pound cannons, a mortar battery, and several bomb ships. While Eslava, Lezo, and Desnaux functioned as an effective and unified command, the relationship between the two British military officers rapidly deteriorated.⁶⁴

ravages of disease, and as early as March 10th, he noted that his grenadiers had already been substantially reduced by sickness. Noted in Anon., *A Journal of the Expedition to Carthagera with Notes* (London: J. Roberts, 1744), 8.

⁶² Ranft, *Vernon Papers*, 191, Vernon to General Wentworth, 16 March 1741; Anon., *Authentic Papers Relating to the Expedition against Carthagera Being the Resolutions of the Councils of War; Both of Sea and Land-Officers* (London: L. Raymond, 1744), 38.

⁶³ Lord Elibank, *A Journal of the Expedition that Sailed from Spithead to the West Indies*, 5 April 1741, PRO CO 5/41, f. 306. Achieving effective ricochet fire is extremely difficult; this clearly demonstrates the capabilities of the Spanish gunners.

⁶⁴ Zulueta, "Health and Military Factors in Vernon's Failure at Cartagena," 131, 133. Vernon doubted the land officer's complaints of the intensive fire of the Spanish defenders at Boca Chica. Vernon's lack of sympathy for the British land forces was unjustified. He discovered just how furious the Spanish fire was when his ships moved closer to support the army. Tobias Smollet, a surgeons mate on one of the British

At four o'clock in the morning on March 25, Wentworth's force of 500 troops stormed the fort of San Luis and easily captured the works; Spanish resistance was light since they had already started evacuating the position using small boats. The British took spent two additional weeks forcing the entrance into the lagoon and neutralizing the inner bay fortifications of Castillo Grande and Fort Manzanillo. During this period, yellow fever began thinning the British ranks; time was running out for many soldiers and sailors. Disease, the Spaniards' greatest ally, quickly reached epidemic proportions among the British and American troops not acclimated to the environmental rigors of the Caribbean. General Wentworth noted that "the excessive Heat not only retarded the Work, but proved fatal to most of the Europeans."⁶⁵ The Spanish defenders did not, however, labor under the same epidemic morbidity. Before the attackers appeared off Cartagena, the recent Iberian reinforcements lost more than a third of their own numbers to yellow fever during an earlier epidemic; many of the surviving regular Spanish soldiers and sailors, like the local militia, shared a greater degree of immunity to the disease. Unlike a significant number of the defenders, the British remained extremely vulnerable to the effects of disease and delay.⁶⁶

On April 5th, the main body of troops landed southeast of the town and the outworks of San Lazar at Texar de Gracias (figure 2.3). After moving inland

ships near the inlet, attests to the intensity of the Spanish fire during the bombardment of Fort San Luis in *The Adventures of Roderick Random* (1748; reprint London: The Folio Society, 1961), 203.

⁶⁵ Anon., *A Journal of the Expedition to Carthage*, 30.

⁶⁶ Lord Elbank, *A Journal of the Expedition that Sailed from Spithead to the West Indies*, 5 April 1741, PRO CO 5/41, f. 311; Justly Watson, *An Abstract of our Proceedings*, 25 March to 4 April 1741, PRO CO 5/41, ff. 275-276; Zulueta, "Health and Military Factors in Vernon's Failure at Cartagena," 138.

approximately two miles, the British dispatched a Spanish blocking force near a large house at La Quinta and “were then within a large half mile of Fort S^t.Lazaro and a mile from Cartagena... but was ordered to halt by the General from the Apprehension of an Ambuscade.”⁶⁷ One British officer felt that “the wretched Resistance the Enemy had made looks suspicious, and as if they wanted to draw us on to something they had prepared for us.”⁶⁸ Instead of exploiting this initial success and pursuing the enemy

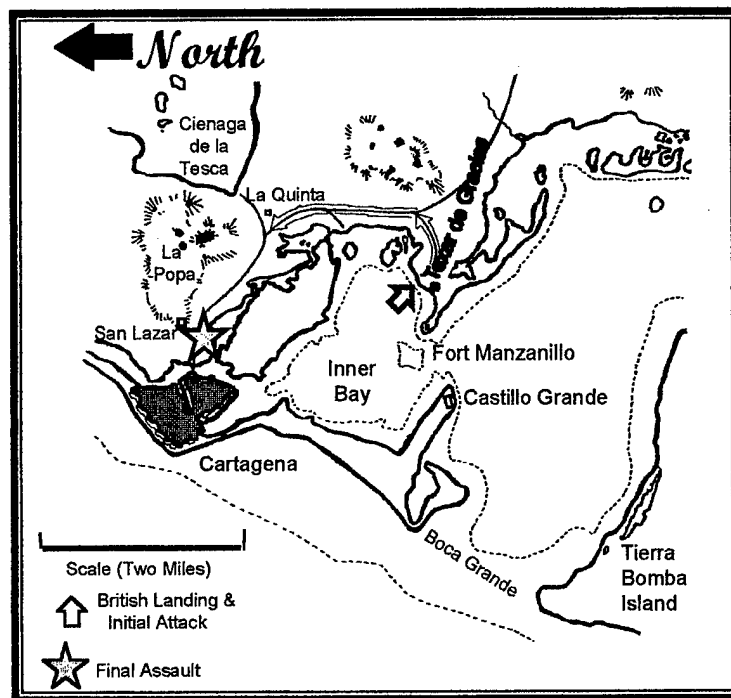


Figure 2.3 - British movement toward San Lázaro⁶⁹

⁶⁷ Lord Elibank, *A Journal of the Expedition that Sailed from Spithead to the West Indies*, 5 April 1741, PRO CO 5/41, f. 310.

⁶⁸ Ibid.

⁶⁹ Harding, *Amphibious Warfare*, Appendix 2, Map 3.

into the city, therefore, Wentworth chose to stop the attack and to continue with the original resolution of "carrying on this siege."⁷⁰

It appears that the general was not able to divest himself from the strict rules of European warfare. His decision was probably wise. Although many contemporaries and historians have criticized Wentworth for not being more direct in his methods at this juncture, his caution is understandable given the fact that an immediate attack on the city would have exposed his men to fire from the nearby elevated fortifications and the city walls without the support of his own artillery or the added firepower of the warships. An unplanned and unsupported infantry pursuit against prepared defensive fortifications was a risky endeavor at best. General Wentworth may also have thought his troops had lost their initiative and that the time for a hasty attack had already passed. According to the military historian Gunther E. Rothenberg, Wentworth's actions were rational within the context of warfare during the *ancien regime*, since "[during this period] combat often was broken off prematurely, and even the victor seldom dared to launch a pursuit in depth for fear of losing control over his troops."⁷¹ Whether he lost his nerve or stopped to consolidate his gains, the fact remains that the British army commander did not take Cartagena on the 5th of April.⁷²

⁷⁰ Ranft, *Vernon Papers*, 215, Draft Resolutions of a Council of War held on board the 'Princess Carolina' in Cartagena Harbour, 3 April 1741.

⁷¹ Gunther E. Rothenberg, *The Art of Warfare in the Age of Napoleon* (Bloomington, Indiana: Indiana University Press, 1978), 13.

⁷² Ranft, *Vernon Papers*, 215, Draft Resolutions of a Council of War held on board the 'Princess Carolina' in Cartagena Harbour, 3 April 1741. Vernon, who later criticized Wentworth's apparent slothfulness, agreed to conduct siege operations against San Lazar during the previous Council of War. It seems ironic that the man who had followed and recommended De Pointis' plan up to that point should have suddenly decided to deviate from the Frenchman's design. De Pointis also faced sparse resistance after landing near San Lazar; however, he conducted a thorough reconnaissance of the fort and even planned to mine it. The

The day following the initial British attack, a group of marauding Americans inadvertently discovered that the Spanish had abandoned La Popa. Given this new intelligence, Wentworth realized that only the fort of San Lazar blocked the road to Cartagena (figure 2.3), and with the advice of the navy and his engineers, he proceeded to invest it.⁷³ Sieges inevitably took time, however, and time was running out. Work crews cleared brush and began to build a grand battery to open a breach. Unlike the action against Fort San Luis, the ground commander did not first attempt to build a large encampment before starting work on the artillery positions. Speed became critical; Wentworth complained: "Troops were under great Difficulties...from the Sickness which hourly encreased."⁷⁴ To finish constructing the battery quickly, Wentworth requested additional manpower from the ships. Vernon, however, refused to offer any seamen despite the inability of his ships to provide effective supporting fire against the fort or town and the lack of any Spanish naval threat in the bay.⁷⁵ Prodded by his naval nemesis and probably fearful of losing most of his men to disease, Wentworth decided to forgo the siege and make an assault on San Lazar on April 9th. The now severely depleted forces attacked the remaining fort which the Spaniards had reinforced with three

Frenchman eventually conducted a ten day siege of the city suburb of Getsami (fortified island between San Lazar and Cartagena). See Hart, *Admirals of the Caribbean*, 120-1 and Marley, *Wars of the Americas*, 213-214.

⁷³ Richmond, *The Navy in the War of 1739-48*, vol. 1, 119-120.

⁷⁴ Anon., *A Journal of the Expedition to Carthage*, 40-41.

⁷⁵ Vernon was a hypocrite; he openly criticized Wentworth for the "fatal consequences of delay" in not following "Mr Pointis'" example while this same British naval officer failed to follow the personnel practices of De Pointis in 1697. Unlike Vernon, the French officer readily utilized his sailors for the land attack against Cartagena at the cost of an undermanning his fleet in the harbor. See Ranft, *Vernon Papers*, 218, Vernon and Sir Chaloner Ogle to General Wentworth, 7 April 1741 and Hart, *Admirals of the Caribbean*, 121-2.

successive lines of trenches. In the confusion of an early morning attack under darkness, the British and American forces only succeeded in reaching the base of the walls. The Spaniards did not flee, but offered "heavy grape-shot from our batteries on the castle and...subjected [the attackers] to rifle-fire [musket] from our earthworks."⁷⁶ By six in the morning, the Spanish defenders sallied forth from their positions and threw back one of the two attacking columns. The already demoralized attackers retreated; the assault failed.⁷⁷

2.4 The Aftermath

After nearly a week of arguing between the land and naval commanders over future courses of action following the defeat at San Lazar, the army officers held their own council of war and elected to retreat.⁷⁸ On the fifteenth of April, the British began to break camp and re-board ships for Jamaica. By the end of May, 1741, the Cartagena expeditionary force had suffered nearly 1600 deaths. Even more revealing, 40 percent of the land forces suffered from sickness during the withdrawal: most of these were,

⁷⁶ Spain, "*Diario de todo lo ocurrido*," 104.

⁷⁷ Ranft, *Vernon Papers*, 219, Vernon and Sir Chaloner Ogle to 'General Wentworth', 7 April 1741; Beatson, *Naval and Military Memoirs*, 104-107; Spain, "*Diario de todo lo ocurrido*," 103-106; Molyneux, part 1, 177-179.

⁷⁸ Most historians cite Wentworth's decision to stand fast and wait before the works at San Lazar as the critical failure of this campaign. His actions remain the central point of contention for historians who have examined this campaign. Fortescue and Corbett saw a flaw in the general's character and blamed his inability to see and sense the battlefield. Clausewitz later referred to this courage, determination, presence of mind, and willingness to act as *coup d'oeil*. It is difficult to determine if General Wentworth lacked *coup d'oeil* or if other circumstances played a part of the failed attack. Historian Richard Harding is much kinder to the general; he argues that the Spanish would not have given up San Lazar so easily anyway, that Vernon and Wentworth had already agreed on a siege of the fort before the second landing, and that success at San Lazar might have ended up with the British fighting a costly urban battle in Cartagena. Historians can easily look back and criticize Wentworth's actions, yet, the fact remains that he did not attack and the siege eventually failed. See Fortescue, *A History of the British Army*, 67; Corbett, *The Navy in the War of 1739-48*, vol. 1, 119; Clausewitz, *On War*, 102-3; Harding, *Amphibious Warfare*, 111.

undoubtedly, yellow fever victims whose names eventually joined the growing list of deceased British and American soldiers and sailors.⁷⁹ Over the next year and a half, more members of the English Caribbean force succumbed to the disease that severely thinned the ranks of redcoats and sailors. Wentworth and Vernon attempted, but eventually canceled, subsequent attacks on Santiago, Cuba and on Panama due to a lack of men and an absence of inter-service cooperation. Their half-hearted efforts against the Spanish only resulted in additional British casualties; none had any real chance of success. The two uncooperative leaders sailed back to Jamaica with their weakened forces where they resolved to suspend further large-scale expeditions and tried to agree on some possible minor operations. This half-hearted attempt proved fruitless. Wentworth and Vernon, along with Governor Edward Trelawney and Admiral Ogle, continued to quibble over military and personal matters. While the leaders quibbled, more men died.⁸⁰

The entire campaign proved a devastating failure. In November 1741, the expedition sailed to Cartagena with 8,676 soldiers; two years and several failed British operations later, only 2,790 remained alive. Among the total casualties, some 600 died of combat related wounds; disease and sickness accounted for virtually all of the remaining losses. Of the 3,119 Americans, only 1,250 survived the fiasco. Even more revealing is the fact that less than ten percent of the contingent of provincial soldiers

⁷⁹ Harding, *Amphibious Warfare*, 205.

⁸⁰ General Council of War, 28 June 1742, PRO SP 42/92, f. 237; Vernon to Wentworth, 27 July 1742, PRO SP 42/92, f. 203; Correspondences of Admirals Vernon, Ogle, & Davers Dealing with their Caribbean Affairs 1740-46, 23 July 1742, PRO Admiralty Office Papers (ADM) 1/233/1, f. 112.

from Rhode Island and Massachusetts returned home in late November of 1742.⁸¹

Although the British leaders made many serious mistakes, the Spanish proved that unrelenting environmental conditions, well defended fortifications, and sufficient time could check a sizeable attack of well-trained soldiers.

⁸¹ The British also impressed a significant, but unknown, number of Americans in order to fill the positions of their dead sailors. See Harkness, "Americanism and Jenkin's Ear," 87-89; Harding, *Amphibious Warfare*, 205.

CHAPTER 3

Case Study II – The Siege of Havana

3.1 The Geography

Approximately nine hundred and fifty miles north-northwest of Cartagena lay the largest island in the Caribbean Sea, Cuba. Havana, the largest Spanish settlement on this tropical isle, was home to the most important strategic Spanish port in the New World (figure 3.1). At the time, the Spanish authorities referred to it as “the Key of all of the West Indies, to lock up or unlock the Door or Entrance to all America.”⁸² Particular geo-environmental conditions made Havana an especially important port. Located along the exit route from both the Caribbean Sea and the Gulf of Mexico, the town served as an important way station for commerce. The port also sat along the far edge of the elliptical pattern of winds formed by the Northeast Trades and the Westerlies. These winds connected Europe to the New World; in the age of sail, they often determined a merchant’s success or failure. Besides the blessings of breezes, Havana sat astride the route of water currents that drove shipping within the Caribbean Sea. Put together, the level of 18th century naval technology and the numerous geographical aspects of this particular Cuban port made it the geo-strategic node of all of Spain’s New World Empire. Moreover, the large sheltered Bay of Havana proved an ideal area to protect ships from the weather and from hostile seaborne attacks.

⁸² Anon., *A Geographical and Historical Description*, 165.

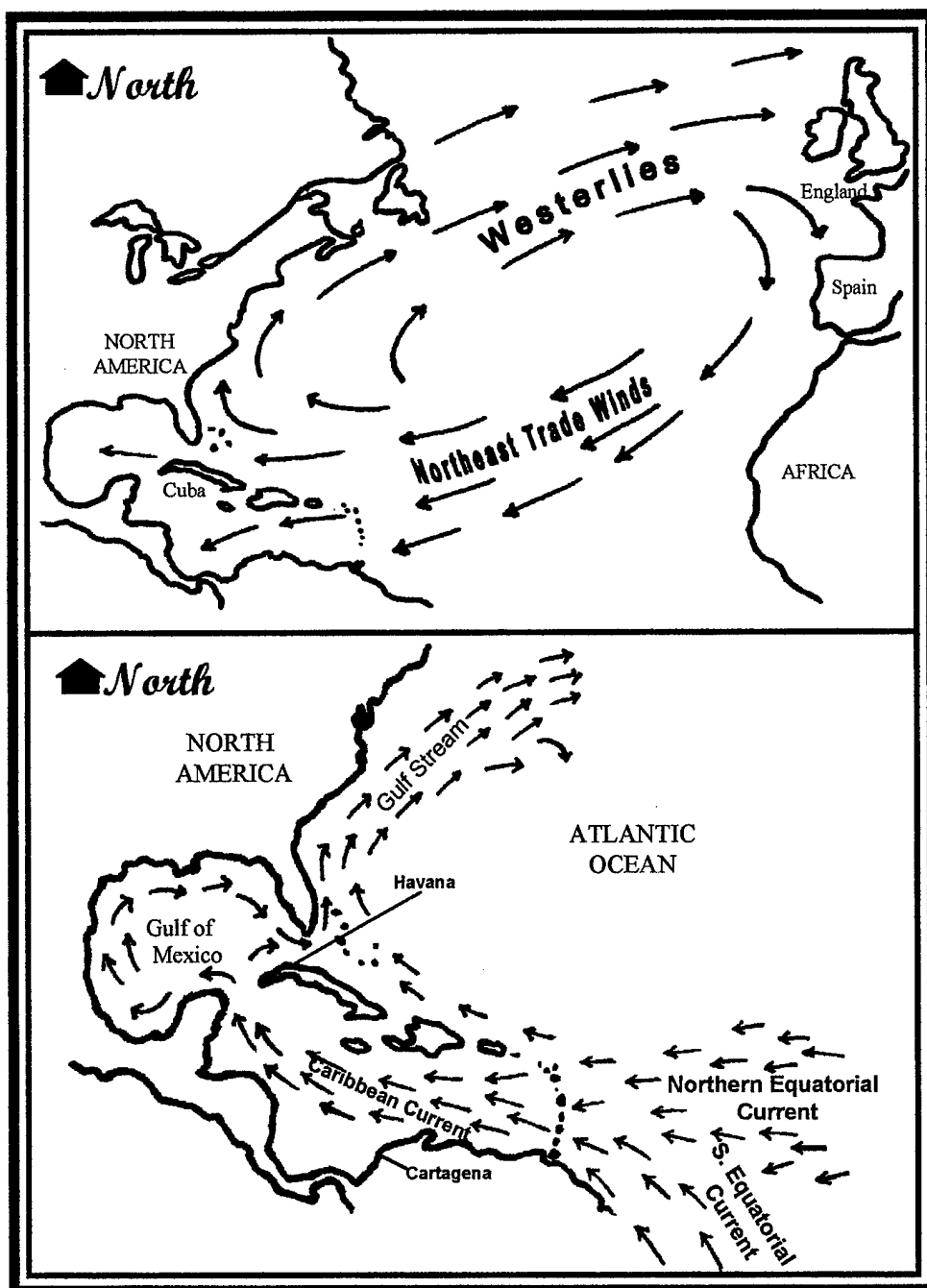


Figure 3. 1 – Winds & Currents of the Atlantic & Caribbean⁸³

⁸³ General sketch and map information from John Robert McNeill, *Atlantic Empires of France and Spain*, 8-9 and Burns, *History of the British West Indies*, 25.

forces.⁸⁴ One British official accurately described the geographic peculiarities that gave

Havana tremendous economic and strategic value:

I would recommend it to those Gentlemen who are not acquainted with the situation of Port Havannah, that they would view the Sea Chart, and consider the Constant setting of the trade Winds in those Seas, and the Currents in the Gulph of Florida, they will then find that Ships cannot return with safety from Mexico, or the Missisipi & c. any other way than by passing near the Port Havannah where they ought to make the land in order to prevent the Current's driving their Ships on the Florida Shore or the Bahama Bank.⁸⁵

Given the city's natural assets, it is not surprising in 1739 that Newcastle strongly

recommended that Admiral Vernon take this city before moving on Cartagena.

Havana was the seat of Cuba's captain general and the marine intendant, and its shipyards produced warships for the Spanish navy. The city's military importance, however, stemmed in great part from the fact that Havana formed the hub for virtually all Spanish New World trade. With privateers and hostile English warships roaming the Indies, the Spanish monarchs employed the strategy of convoying large merchant fleets. This technique became the preferred method for ensuring safe passage of treasure and other commodities to the Iberian Peninsula. Ships from Vera Cruz and Porto Bello often joined the *flota* at Havana for the arduous journey to Spain. The constant movement of merchant and military ships in and out of Havana attracted a great deal of small

⁸⁴ Allan J. Kuethe, "Havana in the Eighteenth Century," *Atlantic Port Cities: Economy, Culture, and Society in the Atlantic World, 1650-1850*, eds. Franklin W. Knight and Peggy K. Liss (Knoxville: The University of Tennessee Press, 1991), 13-15; John Robert McNeill, *Atlantic Empires of France and Spain*, 8-10, 28-30; Burns, *History of the British in the West Indies*, 23-27.

⁸⁵ William Hambly to William Pitt, 3 October 1762, PRO 30/8/39, f. 56.

entrepreneurs and local producers. Over 46 percent of the total Cuban population, both natives and Europeans, lived in and around the city. This amount of urbanization was extremely high in a time before industrialization; most people of this period still settled in rural areas.⁸⁶

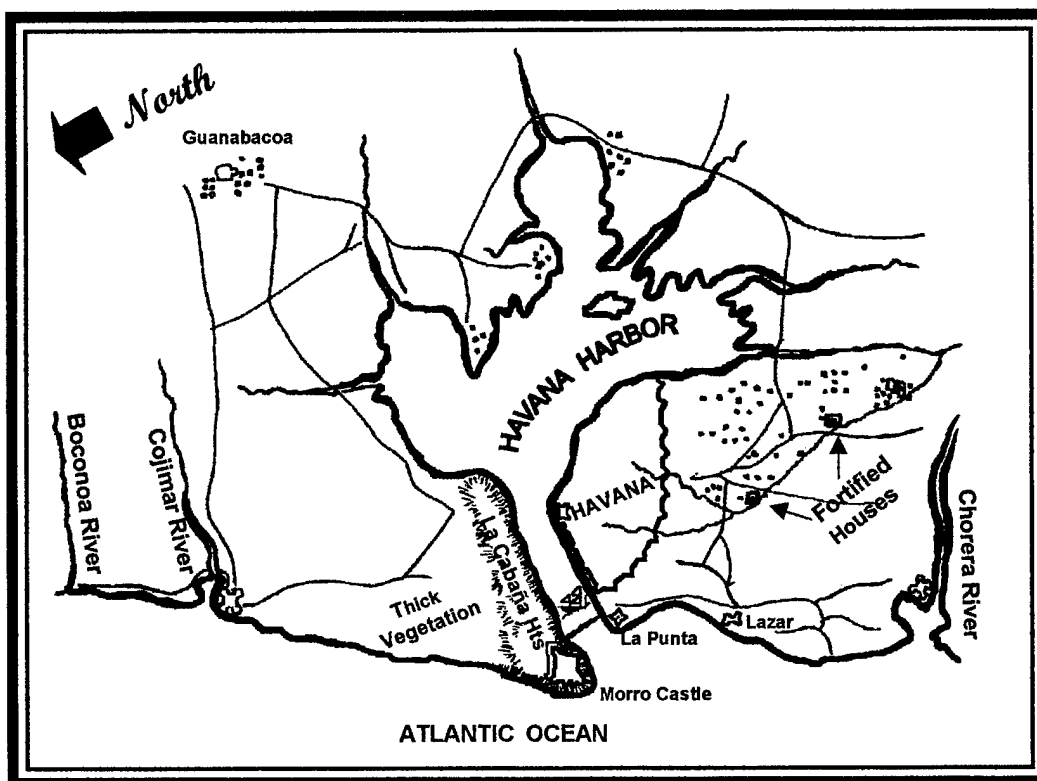


Figure 3.2 - Havana and Surrounding Area in 1762⁸⁷

⁸⁶ Kuethe, "Havana in the Eighteenth Century," 14-15; McNeill, *Atlantic Empires of France and Spain*, 85-87.

⁸⁷ Map sketched from 1762 original in David Syrett, ed., *The Siege and Capture of Havana, 1762* (London: Spottiswoode, Ballantyne and Co., 1970), 316a.

As at Cartagena, enemy ships were not able to get close enough to the city to directly threaten the inhabitants. The bay at Havana served and protected the city; the large inner bay that bordered the town narrowed along a somewhat long channel (figure 3.2). At the mouth of this channel, stood La Punta fort and the formidable Morro Castle: the symbol of Spanish strength in the New World.⁸⁸ The city, which housed a garrison of over 1,600 regular soldiers, was located on the western side of the bay and was entirely surrounded by a stone wall. Besides these measures, the defenders had a small, fortified position to the northeast of the Morro along the Cojimar River. Also, the Spaniards occupied a small waterfront stronghold west of Havana and another one along the Chorera River. The one critical weakness in the fortification system of Havana was the Spanish failure to fortify the heavily wooded Cabaña Heights which lay east of the Morro Castle and directly north of the town.⁸⁹ Only on the eve of the war with Britain did the Spanish recognize this shortcoming and hastily begin to clear and fortify a portion of the hill. As it turned out, the British arrived off the Cuban coast before the Spaniards could reinforce

⁸⁸ The Morro Castle was a massive fort that commanded the harbor, a large portion of the city, and virtually all the ground to the west of the city's walls. The fortress walls, to the surprise of the British, were quite heavy. These walls sat behind a deep ditch cut out of solid stone. Work on El Morro started in 1589 under the same Italian engineer who designed the defenses of Cartagena, Giovanni Battista Antonelli. As historian Syrett notes, "the Spanish considered it to be the strongest fort in America." Like the works at Cartagena, the Spanish continually improved the Morro Castle and the surrounding fortifications of Havana. See David Syrett, ed., *The Siege and Capture of Havana 1762*, 152, *Thoughts upon the Siege of the Havana* by Lieutenant-Colonel Patrick Mackellar, undated.

⁸⁹ The Spanish later attributed this critical failure to Governor Don Juan de Prado's dereliction; he was subsequently court-martialled by the Spanish king. Spain, *Votos de los once comprendidos en el Proceso formado con motivo de la rendición de la Plaza de la Havana a las Tropas de S.M. Británica el día de Agto. De 1762 fundados en los motivos y juicios que acompañan de el Esmo. Sor. Conde de Aranda Presidente que fue del consejo de Guerra*, 8 February 1765, Newberry Library, Edward E. Ayer Manuscript Collection, MS 1224, unfoliated.

the Heights. Ironically, the attackers fortified the key terrain first, but this oversight later proved a costly mistake for the citizens, soldiers, and sailors of Havana.⁹⁰

3.2 Planning and Preparation

Historians Julian Corbett and Richard Middleton credit William Pitt (the Elder) with conceiving of the plan to attack Spain at Havana—the heart of her colonial empire. Pitt charged Lord Anson, the First Lord of the Admiralty and the ministry's expert in naval matters, to devise the general scheme for an assault. Ironically, neither remained in office when the Cuban city fell. Anson presented his plan to a cabinet council on January 2, 1762. The plan was somewhat complex. In short, Lord Albemarle, the commander of land forces, was to take 4,000 soldiers from England, sail to the West Indies and join the army under Brigadier General Robert Monckton that had recently defeated the French in Martinique. Lord Jeffrey Amherst, commander of forces in North America, was to raise another 4,000 men and dispatch them to rendezvous with this combined force at Cape St. Nicholas, a site just west of St. Domingue [Haiti].⁹¹ Unlike the open-ended instructions which the Walpole-Newcastle ministry gave to Vernon, orders of the Pitt-Newcastle

⁹⁰ Anon., *A Geographical and Historical Description*, 160; Allan J. Kuethe, *Cuba, 1753-1815: Crown, Military, and Society* (Knoxville: The University of Tennessee Press, 1986), 14-20; Syrett, *The Siege and Capture of Havana 1762*, map facing page 316.

⁹¹ Corbett, *England in the Seven Year's War*, vol. 2, 246-260; Middleton, *The Bells of Victory*, 205, 212; Harding, *Amphibious Warfare*, 164. Historians Julian Corbett and David Syrett attribute the genius behind gathering forces at Cape St. Nicholas to Lord Anson. The Spanish, no doubt, suspected that any attacking force would approach Havana from the west by way of the Gulf of Mexico. Anson presumably possessed an old Spanish chart of the perilous Old Bahama Channel which approached Havana from the east. This chart supposedly helped the British to navigate the fleet through the dangerous passage and completely surprise the Spaniards. While Anson has received most of the credit for creating the framework for this bold attack, the landing site and general scheme of maneuver was not wholly original. Governor William Blakeney of New York sent Newcastle a letter dated 8 July 1740 containing a plan for an attack on Havana that almost exactly replicated Albemarle's attack twenty-two years later. See William Blakeney to Newcastle, 8 July 1740, PRO CO 5/41, ff. 217-219.

administration firmly established Albemarle "to proceed to the Havana... [and], in conjunction with Our Ships under the Command of Sir George Pocock, make the most rigorous Attack on the said Place."⁹² The administration did allow the land and sea commanders the flexibility to choose follow-on missions after the outcome of their attack on the Havana.⁹³

The council agreed that Admiral George Pocock should assume the naval command while Albemarle exercised total authority for ground forces. Unlike the hostile command relations at Cartagena, several high ranking sea and land officers at Havana shared more than a common bond of nationality. Thus, Albemarle's two brothers occupied key positions within the command structure of the expeditionary force: Commodore Augustus Keppel served as the second-in-command to Admiral Pocock and Major General William Keppel commanded the siege operations against the Morro. All three men got along particularly well with Pocock. As was common in these combined British expeditions, neither the navy nor the army commander maintained overall control; each relied on the other's expertise and cooperation.

The British force departed England on 5 March 1762. As with all plans, the actual execution proved slightly different; however, after several adjustments and delays, the armada of three fleets and three armies finally gathered off St. Domingue near the passage just to the east of the island of Cuba on 25 May (figures 1.1 & 3.1). Although the North American forces had not yet arrived, the British managed to concentrate a

⁹² Egremont to Earl of Albemarle, 18 February 1762, PRO CO 117/1, f. 28.

⁹³ Ibid., ff. 29-30.

formidable force of approximately 12,000 soldiers off the Cuban coast without detection on 7 June.⁹⁴ Strategic and tactical surprise were virtually complete, although the presence of a blockaded French fleet in St. Domingue posed a serious threat throughout this operation. The complexity of this successful naval link-up in enemy waters attests to the growing expertise in British planning and seamanship in combined operations. Pocock carefully navigated the ships through the channel and captured several unsuspecting Spanish merchant vessels enroute. From two of these prizes the British “learned the state of security the Havana was in, the Spaniards not even knowing of the declaration of war.”⁹⁵

3.3 The Attack

The entire fleet anchored safely off the east side of Havana. Pocock, taking twelve ships of the line, “bore away for the mouth of the harbour, to block up the Spanish Men of War that were there and to make a feint on the other side, in order to facilitate our landing on this.”⁹⁶ At daylight on June 7th, approximately 4,000 troops landed on a small beach east of the Cojimar River. After two anchored ships dispersed a weak gathering of enemy forces near the Boconco River, the troops pushed out west toward the Morro Castle. As the British approached the crossing over the Cojimar River, several hundred Spanish soldiers in a small bastion of ten guns greeted them warmly. The

⁹⁴ Syrett, *The Siege and Capture of Havana 1762*, 126, Abstract of the general return of His Majesty’s forces under the command Lieutenant-General Lord Albemarle, 23 May 1762; 134-5, A list of His Majesty’s ships and vessels that are to proceed through the Old Straits of Bahama under the command of Sir George Pocock, undated.

⁹⁵ Anon., *An Authentic Journal of the Siege of the Havana by an Officer* (London: T. Jeffreys, 1762), 11.

H.M.S. Dragon moved close to the shore and silenced the small fort with 37 guns from her broadside; a detachment of marines rowed ashore and secured the damaged redoubt. Albemarle's army then crossed the river and approached to within two and a half miles of the castle. The first day of the siege ended with the British positioned only a short distance from the bastion essential to the Spanish defenses of Cuba.⁹⁷

British intelligence concerning Havana proved quite accurate.⁹⁸ What was essential for the British at this point was a quick and decisive victory. Given the state of surprise of Governor Don Juan de Prado and the other civil authorities of Havana, a successful offensive campaign seemed possible. The Spanish, however, recovered from their initial shock and immediately took steps to improve their defenses; they redoubled their efforts in constructing a redoubt on Cabana Heights, placed a boom across the mouth of the bay, and sank three ships of the line to block the harbor entrance.⁹⁹ In addition to the renewed vigor of the Spaniards, the British discovered other problems: the terrain approaching the castle was extremely hazardous and overgrown with thick vegetation; the eastern shore of the bay contained no fresh water source; Spanish

⁹⁶ Patrick Mackellar, *A Correct Journal of the Landing His Majesty's Forces on the Island of Cuba; and of the Siege and Surrender of the Havannah, August 13, 1762* (Boston: Green and Russell, 1762), 3.

⁹⁷ *Ibid.*, 4.

⁹⁸ Admiral Knowles, who had served with Vernon in Cartagena and in numerous other expeditions, was governor of Jamaica for several years prior to the Havana campaign. During his last year in this position, he visited Havana as an invited guest where he thoroughly gathered intelligence on the fortifications and the bay. As Syrett noted, however, Knowles' description of the Morro drastically underestimated its strength from the landward side. See also George Thomas Keppel, *Memoirs of the Marquis of Rockingham and his Contemporaries*, vol. 1 (London: Richard Bentley, 1852), 93-4, H.R.H. The Duke of Cumberland to the Earl of Albemarle, 24 February 1762.

⁹⁹ Syrett, *The Siege and Capture of Havana 1762*, 177, Mackellar's Journal, 9 June 1762.

irregular forces made movement through the wooded terrain perilous; and the rocky soil did not permit rapid digging of covered approaches to the castle.¹⁰⁰

Despite the harsh environment and the imposing castle, Albemarle pushed forward. Shortly after landing, the British attacked and secured the town of Guanabacoa several miles southeast of the Morro. Albemarle then dispatched Colonel Guy Carleton on June 11th to destroy the Spanish redoubt on the heights of La Cabaña, and the next day he ordered construction of a siege battery in the woods 250 yards east of the Morro. Seven days later he added a mortar battery “upon the right near the sea, for one 13-inch, and fourteen royal mortars.”¹⁰¹ The British forces added additional batteries over the next week, including one on La Cabana; as a diversion, Albemarle also landed Colonel William Howe on the northwest side of Havana near the Chorera River.¹⁰² Still, the Spanish defenders in Morro Castle and the town held firm. What had arrived “like Thunder and Lightning to some unprepared Part of the World” in a geo-strategic sense, began to approximate operationally the methodical conduct of European fortress warfare.¹⁰³ Albemarle had gained the strategic initiative, but was forced to conduct a

¹⁰⁰ Ibid., 151-8, Thoughts upon the Siege of the Havana by Lieutenant-Colonel Patrick Mackellar, undated. In contrast to what the British saw in front of El Morro, the terrain on the west side of the bay was quite different. One Connecticut soldier called that area “the finest Land to look tew I ever saw. Cokanut trees, ye Cabbedg tre, the canarys, the grapes, the Cattel, the ass, the mule.” Taken from Roswell Park, *A Journal of the Expedition against Cuba, 1762* (Buffalo, New York: University of Buffalo, 1920), 241.

¹⁰¹ Mackellar, *A Correct Journal of the Landing*, 7-8.

¹⁰² This diversionary attack discovered a fresh water source that became essential as heat and disease became worse.

¹⁰³ Molyneux, *Conjunct Expeditions*, part 1, 4.

standard and time consuming military siege.¹⁰⁴ During this Anglo-Spanish campaign, however, the British fully intended to “either take the Place or make a Handsome Apology for failing in the Attempt.”¹⁰⁵

The British expedition had the misfortune of starting the operation with many sick troops, who only recently had completed the capture of Martinique from the French. By the beginning of July, excessive heat, lack of water, and yellow fever started to take a heavy toll on the Redcoats. As Albemarle’s men grew increasingly fatigued and sick, the siege work slowed. The British land commander wrote to Pocock, “I wish the North Americans were come; we begin to want troops.”¹⁰⁶ Determined to continue forward, Albemarle requested marines and sailors from Pocock to assist in mining, building batteries, clearing brush, and manning the guns. Unlike Vernon twenty-one years before, Pocock realized that if the siege failed, there would be no victory on land or sea: he therefore readily agreed to cooperate and told his counterpart that “with regard to El Morro, your Lordship’s work will be made good.”¹⁰⁷ Throughout July, the sailors and marines further assisted the besieging forces by transporting supplies and evacuating dead and wounded, with the result that, according to Commodore Keppel, Pocock’s second-in-command, “the ship’s companies as well as the troops begin to fall sick very fast.”¹⁰⁸ Time was once again the defenders best ally.¹⁰⁹

¹⁰⁴ Anon., *An Authentic Journal of the Siege of Havana*, 16-17; Mackellar, *A Correct Journal of the Landing*, 7-8.

¹⁰⁵ Colonel Hale to William Pitt, 27 May 1762, PRO 30/8/39, f. 19.

¹⁰⁶ Syrett, *The Siege and Capture of Havana 1762*, 220, Albemarle to Pocock, 2 July 1762.

¹⁰⁷ Ibid., 224, Pocock to Albemarle, 5 July 1762.

¹⁰⁸ Ibid., 228, Keppel’s Journal, 9 July 1762.

The Spaniards in the Morro Castle, under the command of the naval officer Don Luis de Velasco, proved stubborn. As the British worked, the defenders continued to engage them from the castle. On June 29th, the Spanish mounted an attack by crossing the bay in boats and climbing the Cabana heights in order to destroy the British mortars bombarding the bay and the city. Another detachment of regulars and marines advanced across the glacis to attack the British mortar battery along the coast (figure 3.3 – side view). The alert and entrenched besiegers repulsed the Spaniards inflicting heavy losses: despite these bold Spanish maneuvers, the British completed the siege batteries east of the castle on June 30th.¹¹⁰

In spite of another noteworthy display of cooperation, bombardment of the main fort proved only partially effective. As the land batteries engaged the castle, three warships anchored near the Morro and engaged it from the sea. Although all three vessels suffered severe damage from Spanish counter-fire, the losses were not in vain, “their [Spanish] attention being wholly taken up by the ships.”¹¹¹ The height of the castle prevented any real damage from the sea, but the land batteries out-gunned the Spanish and disabled all but three cannons in the Morro. Velasco refused to be bested; he continued to repair and rebuild the defenses. Each night the Spanish brought men and material from the city in order to prolong the siege. The tenacity of the defenders and the

¹⁰⁹ Ibid., 103, Albemarle to Amherst, 4 May 1762; 225, Keppel to Pocock, 6 July 1762; 227, Keppel to Pocock, 8 July 1762; 229, Keppel to Pocock, 9 July 1762; 235, Keppel to Pocock, 13 July 1762.

¹¹⁰ Archibald Robertson, *His Diaries and Sketches in America, 1762-1780* (New York: The New York Public Library, 1930), 180-191.

¹¹¹ Anon., *An Authentic Journal of the Siege of the Havana*, 22.

speed which they replaced their damaged guns surprised General William Keppel, the British division commander in charge of the actual siege.¹¹² By July 4th, only three days after the siege batteries opened, one observer noted that “the Morro was now found to be *tuffer work*, and the *Spaniards more resolute than was at first imagined*” [observer’s italics].¹¹³

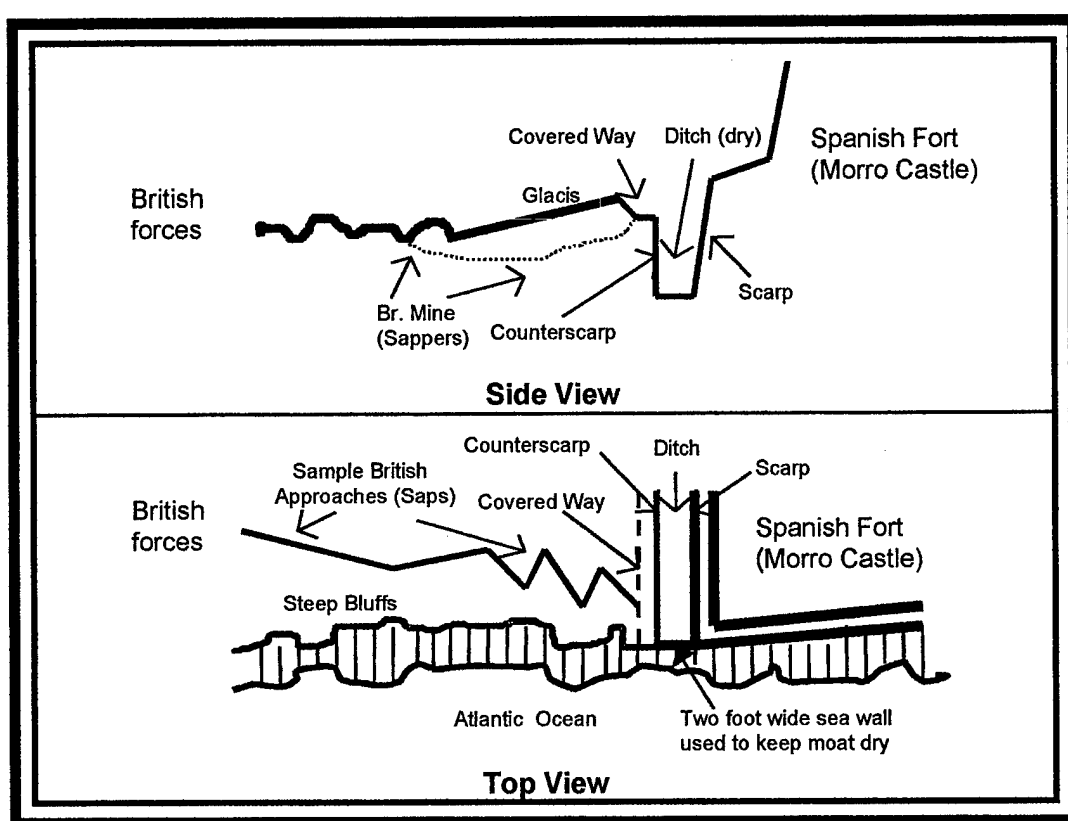


Figure 3.3 - British Breaching Effort against the Morro

¹¹² Lord Albemarle, Commodore Augustus Keppel, and General William Keppel were brothers. Like the Howe brothers in the War of American Independence, familial relationships often created close inter-service cooperation.

¹¹³ Anon., *An Authentic Journal of the Siege of the Havana*, 24.

Bombardment continued on both sides for most of the month. The British used the distraction of the batteries to redouble their mining and sapping efforts against the Morro (figure 3.3). When they reached El Morro's covered way on July 20th, the British discovered a weakness in the castle's defenses. Lieutenant-Colonel Patrick Mackellar, the chief engineer, described what they did next: "we began the same afternoon to sink a Shaft without the covered way, for mines to throw the Counterscarp into the ditch to fill it up in case of occasion. We continued our Sap along the Glacis."¹¹⁴

The British siege operations encountered obstacles other than just the rocky terrain. On the morning of 22 July, the Spaniards launched a three-pronged sally against two batteries and the sappers on the glacis. The English, however, were prepared; they quickly defeated all three attacks. Nevertheless, the delays became more costly as yellow fever had now reached epidemic levels. In a correspondence to his naval counterpart, Lord Albemarle commented on the tenuous situation facing his besieging force:

Dear sir, The great increase of sick, and consequent consumption of medicines, begins to alarm [Doctor] Sir Clifton [Wintringham], and he is apprehensive they will be expended before the return of the Duke of York transport from Jamaica. El Morro is quiet...we are mining as fast as possible, and the Governor is hard at work in the town. The North Americans would greatly facilitate this business.¹¹⁵

Another officer, echoing this fear, wrote, "our people are so reduced by sickness, that we had but a melancholy prospect; and the great want of water...together with the great heats, helped very much to deject the people."¹¹⁶ The British commander, despite his misgivings and losses, never wavered from his plan. The situation rapidly improved for

¹¹⁴ Mackellar, *A Correct Journal of the Landing*, 18.

¹¹⁵ Syrett, *The Siege and Capture of Havana*, 259-30, Albemarle to Pocock, 25 July 1762.

¹¹⁶ Anon., *An Authentic Journal of the Siege of the Havana*, 31.

the English; as Albemarle had hoped, part of the North American contingent did arrive on 29 July, only two days prior to the springing of the mine.

By crossing the thin sea wall, the British engineers were able to traverse the deep ditch and place mines for the breach against the walls of the Spanish fort (figure 3.2). During the *siesta* on the 1st of August, the British activated their mines. The explosion took the soldiers behind the fortifications completely by surprise while the waiting British troops traversed the rubble and poured into the fort's ocean-side breach (figure 3.4). Within half an hour, the attackers killed or captured all the defenders.

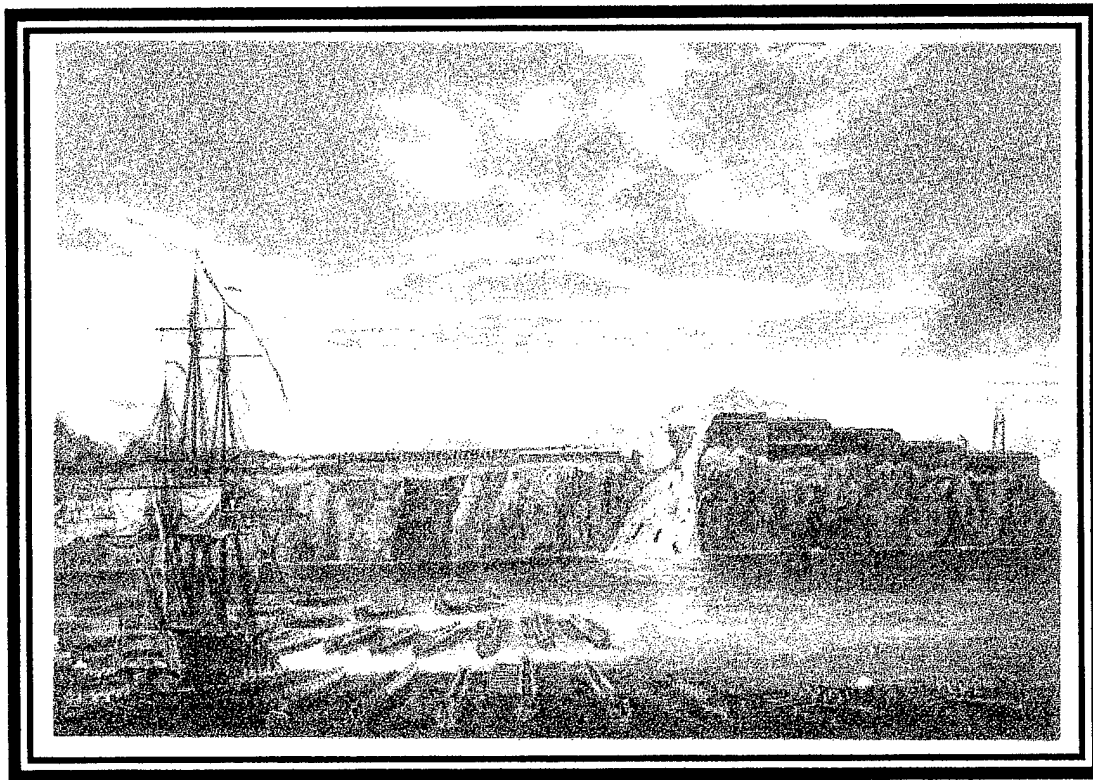


Figure 3.4 – British Troops Storm the Morro Castle after Creating a Breach¹¹⁷

¹¹⁷ Dominic Serres, *Perspective View of Entering the Breach of the Moro Castle, by storm the 30th of July 1762*, Engraving, Anne S. K. Brown Military Collection. Curator Peter Harrington provided the author a

With their main stronghold captured, the Spanish soldiers and sailors attempted to destroy their former stronghold. "The Spaniards now aimed all their fire at the Morro, to prevent [the British]...making use of it as a battery against the Puntal or Town. In this they succeeded, having very soon thrown down [rubbled] the bastions that faced the harbour."¹¹⁸ The English decided to abandon the now useless fortification, which was still under Spanish bombardment, and to erect a large string of batteries on the Cabana heights. With the assistance of fresh labor provided by the first contingent of colonial arrivals, the combined Anglo-American force completed the batteries in under two weeks. On the 11th of August, the forty-eight British cannon and eight mortars opened upon Fort Punta and the town walls. Two days later, the leaders agreed to terms. Havana, the colonial gem of the Spanish Crown, became property of the king of England.¹¹⁹

3.4 The Aftermath

The spoils of war were staggering: twelve Spanish ships-of-the-line, over 737,000 English pounds in money, military equipment, and over ten months of lost revenue during the British occupation of the prosperous city.¹²⁰ Another less measurable loss was

copy of this engraving. The print is somewhat misleading since the assault troops, barely visible in this copy, did not use naval landing craft, but only pushed into the opening by land.

¹¹⁸ Ibid., 32.

¹¹⁹ Mackellar, *A Correct Journal of the Landing*, 25-31.

¹²⁰ It is impossible to determine the exact amount of Cuban resources used or extracted by the British during their occupation of the town. Also, since Havana functioned as the main trading port for Spanish merchant trade in the New World, the English, for almost a year, cut off ten months of potential revenue usually generated by the port in the extraction of resources and the sale of Spanish goods. The loss of Havana was more than just a mental shock: Spain lost a major privateering base of the *guarda costas*; the largest Spanish shipyard in the Spain or the Americas and a major supplier of sugar, tobacco, and hides. Plus, as Allan J. Kuethe proves, the occupation of 1762-63 afforded the British the opportunity to strengthen commercial ties with the local authorities; many of these connections survived after Spain re-gained control

the psychological impact caused by the destruction of the myth that Havana was impregnable: the British had proved the vulnerability of the heart of the oldest European empire of the New World. The fall of Havana completely reshaped Europeans' understanding of power in the New World. For the vanquished, British abilities and capabilities were now a force to be reckoned with in the Caribbean.

For the victors, military success was bittersweet. The day after surrender, British officials counted some 1,800 dead while thousands of additional soldiers suffered from wounds and sickness. Total losses for the army by 18 October 1762 were 5,366, of whom 4,708 had died of disease. As expected, the navy losses were less. By the 9th of October, 800 seamen and 500 marines had perished of whom only 86 fell in battle. More staggering, 2,673 seamen and 601 marines were listed as sick; many of these would not recover. As at Cartagena, a complete British army had been rendered ineffective for combat by yellow fever. It was a costly campaign for both sides—mentally and physically.¹²¹

of the city and became quite substantial during the French Revolution and the Napoleonic Wars. John Robert McNeill, *Atlantic Empires of Spain and France*, 87, 190, 194; Allan J. Kuethe, "Havana in the Eighteenth Century," 29.

¹²¹ Braudel, *The Mediterranean*, vol. 2, 1103; Syrett, *The Siege and Capture of Havana 1762*, xxxv; Richmond, *Statesmen and Sea Power*, 139. Unlike the British withdrawal from Cartagena, the victory at Havana kept most of the British forces on Cuba for three additional months. These survivors of the siege had to endure the entire sickly season (May-October) as the epidemic swept their ranks.

CHAPTER 4

“A Terrible Sort of War...to Some...Part of the World”

British chauvinism and Spanish weakness do not sufficiently explain the many differences between the two campaigns. A deeper analysis of the effectiveness of the Spanish colonial defensive system and a new and emerging British way of war in overcoming this system is essential to understanding the eventual dominance of Great Britain in the commercial and military affairs of the Caribbean. Both campaigns can explain a great deal not only about the nature of warfare in the West Indies, but also about disease, climate, morale, and empires. These two case studies provide only a small window through which one can observe a much larger panorama of the changing dynamics of imperial history. As the discussion above has shown, the Spanish will to fight and the strength of their many fortifications were impressive, but neither of these aspects of Caribbean warfare differed from the experience of the European continental armies in battle. More essential was how the Spanish applied their fighting and engineering skills to enhance the force multipliers already provided by nature.

The demography and environment of the West Indies created unique circumstances that forced both the attacker and the defender to adapt their methods of combat. Spain, the first European power to explore and eventually colonize the Caribbean, was the first to learn the most effective methods of tropical warfare. The

Conquistadors quickly discovered that European diseases, particularly smallpox, were extremely beneficial when trying to defeat an aboriginal army many times larger than their own. The epidemics brought on by these diseases destroyed more than just armies, they decimated entire Amerindian civilizations. The Spaniards undoubtedly realized the importance of such powerful and destructive invisible armies; however, many historians who have criticized British military performance in the West Indies have failed to appreciate the full impact of epidemiological factors in shaping operations.¹²²

European explorers also introduced two deadly mosquito borne diseases that helped to change colonization and warfare in the Indies: yellow fever and malaria. The former arrived in the seventeenth century while the latter appeared in the New World almost a full century earlier. Of the two diseases, Europeans feared yellow fever more because of the terrible rate at which it attacked and killed the former inhabitants of the Old World. By the start of the eighteenth century, yellow fever had swept much of the Caribbean leaving either dead victims or an indigenous population of immune survivors. Also, since yellow fever originated in Africa, it was much less devastating to Africans than Europeans; many West Indian slaves had been previously exposed as children or may have even carried a parental transferred genetic immunity. Of all the forces in the West Indies, yellow fever proved most effective in destroying British and French attacking troops arriving directly from the Continent. An amphibious operation of non-immune Europeans campaigning within a low-lying area provided virtually all of the

¹²² William H. McNeill, *Plagues and Peoples* (New York: Anchor Books, 1976), 177-186; Alfred W. Crosby, *The Colombian Exchange: Biological and Cultural Consequences of 1492* (Westport, Connecticut: Greenwood Press, 1972), 35-39; Noble David Cook and W. George Lovell, "Secret Judgments of God:" *Old World Disease in Colonial Spanish America* (Norman, Oklahoma: University of Oklahoma Press, 1992), 215-218.

necessary elements for a yellow fever epidemic: small, still bodies of water for vector reproduction; an extremely concentrated and unsanitary body of hosts for food and transmission; and temperatures usually well above 72 degrees. With an incubation period of only three to six days, a small outbreak among soldiers became an epidemic within only a couple of weeks as mosquitoes transferred the disease from an infected host to non-infected hosts. Without proper treatment (bed rest, fluid/blood replacement, cooling, and supportive care) a victim usually died within 7-10 days.¹²³

For European military forces of this age, the treatment for yellow fever sometimes hindered recovery more than it helped. Dr. James Lind, chief physician for the Royal Navy, recommended bleeding, emetics to force vomiting, leeches to the temples, and even wine.¹²⁴ More importantly, the medical conditions for the afflicted troops were horrendous. While at Cartagena, the author Tobias Smollet, an eyewitness and surgeon's mate, noted:

The sick and wounded were squeezed into certain vessels, which thence obtained the name of hospital-ships, though methinks they scarce deserved such a creditable title, seeing few of them could boast of their surgeon, nurse, or cook; and the space between decks was so confined, that the miserable patients had not room to sit upright in their beds.¹²⁵

¹²³ William H. McNeill, *Plagues and Peoples*, 188-191; Although vaccination and mosquito elimination are the current methods of preventing the disease, the methods of treatment noted above are still the same as those used today. See Hawaiian Health Department, Communicable Diseases - Yellow Fever [fact sheet on-line]; available from <http://mano.icsd.hawaii.gov/health/cdd/cddyellow.htm>, Internet; World Health Organization, Emerging and Other Communicable Diseases (EMC) - Yellow Fever Fact Sheet, 100 (December 1995), available from <http://who.ch/emc/yellow/index.htm>, Internet; Donald B. Cooper and Kenneth F. Kiple, "Yellow Fever," *The Cambridge World History of Human Disease*, ed. Kenneth F. Kiple (Cambridge: University Press, 1994), 1100-1107.

¹²⁴ James Lind, *An Essay on Diseases Incidental to Europeans, in Hot Climates* (Edinburgh, 1768; reprint, Philadelphia: William Duane, 1811), 190-1. Dr. Benjamin Rush was recommending the same treatments for yellow fever patients in Philadelphia in the latter years of the eighteenth century.

¹²⁵ Smollett, *Roderick Random*, 209.

The conditions at Havana were slightly better than those at Cartagena twenty-one years earlier. The British force of 1762 traveled with a much more extensive medical staff than that mustered by Vernon for his expedition. In Havana, the English provided one medical officer for every 110 men of the expeditionary force.¹²⁶ Yet even with this added benefit, the length of this campaign, compared with that of 1741, inevitably took a heavy toll. Dr. Lind offered an extract of one officer's experience in Havana:

I think myself extremely happy in being among the number of the living, considering the deplorable condition we are now in...We are now very sickly [24 October 1762], as you may imagine, when out of 17 battalions here, we cannot muster 600 men fit for duty. The appearance of this country is most beautiful, and its natural advantages are many; yet a man's life in it is extremely uncertain, as many are in health one morning, and dead before the next.¹²⁷

This new type of "lightning warfare" across the globe also came with more than the usual risks of eighteenth century warfare, it exacted a heavy price in manpower. In order to deploy troops directly from a home port into a hot, wet, and unhealthy environment, the British, or any other European army, encountered immense risk and possible destruction in only one campaign season. As William H. McNeill and Alfred Crosby argue, there were ecological, not just economical, reasons why Europeans conquered and subsequently populated the more temperate areas of the New World rather than risk certain death in the tropics. Since the English were principally interested in conquest and tribute and not colonization in the West Indies, they were never able to establish a stable disease pattern after the devastating encounter between host and microparasite. Instead, unexposed and biologically susceptible Redcoats were repeatedly

¹²⁶ Neil Cantile, *A History of the Army Medical Department*, vol. 1 (Edinburgh: Churchill Livingstone, 1974), 117.

¹²⁷ Lind, *An Essay on Diseases*, 96.

introduced to a disease that quickly destroyed them. The epidemics that each new British army experienced against this imported African pathogen were very similar to what the Amerindians faced when first exposed to smallpox two and a half centuries earlier.¹²⁸ For operations in the Caribbean, Whitehall had to measure biological risks against the military, economic, and political rewards.¹²⁹

It would appear that by only varying the dates of these operations, the attackers could have conducted Caribbean campaigns during the healthier winter months. This actually did occur in Martinique in January and February of 1762. There were, however, reasons why these salubrious campaigns were the exception and not the rule.¹³⁰ Since British ministers usually had to wait until fall before learning the results of the previous year's operations, planning and preparations often did not begin until December or January. Also, the home ministry usually did not dispatch expeditions to the Caribbean during the fall because of the dangers of the hurricane season from July to late

¹²⁸ Alfred Crosby, *Ecological Imperialism: The Biological Expansion of Europe, 900-1900* (Cambridge: Cambridge University Press, 1986), 138-141; William H. McNeill, *Plagues and Peoples*, 48-58, 189; Ross Hassig, *Mexico and the Spanish Conquest* (London: Longman Group UK Limited, 1994), 101, 152-4.

¹²⁹ By 1788, Parliament and military leaders openly debated the value of losing Redcoats to Caribbean diseases. General John Burgoyne vehemently objected to manning forts in the West Indies. He claimed that within the first three months of arrival, one third died, one third were in the hospital sick, and only one third were available for duty. This last third, he believed, would be unable to resist attack. See Richmond, *Statesmen and Sea Power*, 159-161.

¹³⁰ More typical were the larger numbers of European expeditions that suffered from yellow fever in the hot summers: Admiral Hosier's expedition of 1726-1727; Cartagena expedition 1741-1743; Havana expedition 1762; Britain's Haiti campaign of 1796-98; and France's Saint Domingue campaign of 1802. See Christopher Lloyd and Jack L. S. Coulter, *Medicine and the Navy, 1200-1900*, vol. 3 (Edinburgh: E. & S. Livingstone Ltd., 1961), 97-100; Thomas Phipps Howard, *The Haitian Journal of Lieutenant Howard, York Hussars, 1796-1798*, ed., Roger Norman Buckley (Knoxville: The University of Tennessee Press, 1985); Howard N. Simpson, *Invisible Armies: The Impact of Disease on American History* (Indianapolis: The Bobbs-Merrill Company, 1980), 149-167.

October.¹³¹ Once the government learned the results of the previous campaign, the lag time in choosing leaders, raising recruits, outfitting ships, and gathering supplies inevitably forced combined expeditions to leave Europe from January through March. This left little time to begin land operations before the summer wet season arrived.¹³²

With their ever-present ally "yellow jack," the Spaniards maintained an effective system of defense in the Americas.¹³³ Yellow fever was a psychological as well as an ecological combat multiplier. Many British soldiers, sailors, and settlers made a conscious effort to avoid assignment in the West Indies. After his unpleasant experience in Cartagena in 1741 and his subsequent time in Jamaica, Augustus Hervey returned to England in 1746 where he refused appointments in an attempt to dodge service in this unhealthy area. He successfully avoided returning again until the Havana campaign.¹³⁴ The gruesome stories from British garrisons across the ocean even frightened families of military personnel.¹³⁵ Actually, soldiers and sailors who returned to England only needed

¹³¹ Burns, *History of the British West Indies*, 729.

¹³² Although Fernand Braudel examined the average speed news traveled in Europe in the sixteenth century, many of his observations can be applied to sailing ships in the eighteenth century as well. Winds, currents, and environment in general slowed dispatches to London. An additional factor slowing the movement of information in the Indies was French, Spanish, and Dutch enemy ships and privateers. See Braudel, *The Mediterranean*, vol. 1, 355-378. Anon., *Journal of the siege of Martinique beginning the 7 of Jany and ending the 5 of Feby 1762*, Manuscripts Room Collection, New York Public Library, New York; Pares, *War and Trade in the West Indies*, 269.

¹³³ This was an endearing name which British soldiers gave to the disease because of the yellow quarantine flag flown by ships. The Spaniards called it *vomito negro* because of the dark bloody bile that the patient expelled during latter stages of the disease. See Cooper and Kiple, "Yellow Fever," 1100-1101.

¹³⁴ David Erskine, ed., *August Hervey's Journal: Being the Intimate Account of the Life of a Captain in the Royal Navy Ashore and Afloat, 1746-1759* (London: William Kimber, 1953), xxii-xxiii.

¹³⁵ Buckley, *The Haitian Journal*, xi.

to tell what happened to those who died of yellow fever in order to strike fear in the hearts of those back home:

The onset of the fever is sudden, with accompanying headache, nausea, and nosebleeds. Later the eyes take on a yellow cast, which gives the fever its name. With this comes great straining of the stomach, which produces hemorrhaging and a subsequent black vomit caused by accumulations of stale blood. The lymph nodes, especially under the arms and in the groin often swell to the point of bursting the buboes.¹³⁶

Although they did not fully understand how or why diseases like malaria and yellow fever continually struck down so many Europeans in the Caribbean basin, these European transplants lived with a "personal apprehension, either with respect to climate, or disease."¹³⁷ It was only human nature that these men sought "the brilliancy, the order, and the comfort of a domestic camp, in the peaceful fields of England."¹³⁸ This image of an army stood in direct contrast to:

a confused and tumultuous encampment upon the enemy's soil, threatened by the approach of a daring foe, routed by blood-thirsty cohorts, or stormed by a horde of merciless brigands...[and] the dire confusion of battle, the distress of defeat, and the dreaded effects of panic, with all the horrid scene of bleeding wounds, dying groans, and mangled bodies, and still worse than these, were pictured the fatal ills of climate:—yellow-fever...¹³⁹

¹³⁶ Joann P. Krieg, *Epidemics in the Modern World* (New York: Twayne Publishers, 1992), 50.

¹³⁷ George Pinckard, *Notes of the West Indies: Written during the expedition under the command of the late General Sir Ralph Abercromby: including observations on the island of Barbadoes, and the settlements captured by the British troops on the coast of Guiana...* (London: Longman, Hurst, Rees, and Orme, 1806), 17. Pinckard was an English doctor who spent several years living in the West Indies at the turn of the 19th century. This European fear of disease and climate is also covered in Karen Ordahl Kupperman, "Fear of Hot Climates in the Anglo-American Colonial Experience," *William & Mary Quarterly* 41 (1984): 213-40.

¹³⁸ Pinckard, *Notes of the West Indies*, 14.

¹³⁹ *Ibid.*

For the military men who made it to a medical facility, they might receive inadequate medical treatment from understaffed, temporary, and overcrowded hospital where “very few ever came-out except to their Graves.”¹⁴⁰

Undoubtedly, long journeys by ship, poor rations, immense heat, torrential rains, bothersome mosquitoes, and deadly diseases severely affected the morale and combat effectiveness of unseasoned Redcoats who fought in the Caribbean. In actual combat, the unpleasantness only increased:

...the ghastly horror of having your sense of smell saturated constantly with the putrid odor of rotting flesh day after day, night after night...in the tropics the dead became bloated and gave off a terrific stench within hours after death...at every breath one inhaled hot, humid air heavy with countless repulsive odors.¹⁴¹

If the soldier did die fighting in this strange land, he had no guarantee of getting a proper burial. For that matter, he was not sure that he would even be buried at all. At Cartagena, the retreating British left a great number of their unburied dead to rot in the hot Colombian sun.¹⁴²

The psychological and physical impact of diseases could benefit those who knew how to effectively ‘use’ its destructive potential. For sheltered defendes or for those forces already immune to a particular, disease could be a combat multiplier. The Spanish were not the only Europeans to attempt to utilize the power of plagues in military endeavors. Probably one of the most famous examples of early biological warfare

¹⁴⁰ Howard, *The Haitian Journal*, 49.

¹⁴¹ These words were actually written by an American marine almost two hundred years later on the other side of the world. They could have just as likely been written by our fictitious “Jack.” E.B. Sledge, *With the Old Breed: At Peleliu and Okinawa* (New York: Oxford University Press, 1990), 142-3.

¹⁴² Spain, “*Diario de todo lo ocurrido en la expugnacion*,” 106.

occurred in 1763 in North America. Major General Jeffery Amherst supposedly ordered his men to distribute blankets infected with smallpox to the enemy tribes of Native Americans.¹⁴³ Amherst was not the first Englishman to attempt to utilize diseases to his advantage. At a council of war on Jamaica in July of 1658, the British soldier-settlers debated "Whether it was most advantageous to assault them [recently landed Spanish soldiers] presently, or let them partake of the distempers and want of the Country, and when sickness had weakened them to attempt them then."¹⁴⁴

In his journal of the siege of Havana, the Governor Don Juan de Prado closely followed the progress of the yellow fever epidemic within the British forces; he explicitly noted personnel status updates that he received from enemy prisoners and several Irish deserters.¹⁴⁵ On 23 July, Prado wrote in his diary that *vómito negro* "caused severe mortality in the [British] army" and that "the [English] officers were not at all happy with the duration of the siege because all the sick suffered."¹⁴⁶ Like the British, he understood the Spanish advantage in trying to drag out the length of the siege.

¹⁴³ John Cuthbert Long, *Lord Jeffery Amherst, Soldier of the King* (New York: The Macmillan Company, 1933), 186-7. It may be more than just a coincidence that Amherst gave this order only a year after the Havana campaign. He was clearly aware of the impact that disease had on British and American troops (and his own 15th regiment) since the heavy losses in Havana did not allow the Earl of Albemarle to send forces to Amherst to support his planned follow-on operation to Louisiana. Instead, Albemarle sent many of his sick soldiers "to a northern (North America) climate in hopes that the change of air may recover them." See Syrett, *The Siege and Capture of Havana 1762*, 293, Albemarle to Amherst, 18 August 1762.

¹⁴⁴ Edward Dooley, *A Brief Relation of a Victory, Obtained by the Forces under the Command of Gen. Edward Dooley, Command in chief of his Highness's Forces in the Island of Jamaica, Against The Forces of the King of Spain, Commanded by Don Christopher Arinaldo Safi, Command in chief of the Spanish Forces there* (Edinburgh, 1659), 2. I must thank Dr. Carla Pestana for bringing this particular pamphlet citation to my attention.

¹⁴⁵ Don Juan de Prado, *Diario de lo ocurrido en la Habana durante el Sitio* (Diary of what occurred in Havana during the Siege), June-August 1762, Massachusetts Historical Society, Francis Russell Hart collection, Ms. N-189, ff. 13-14, 15, 16, 28, 32, 39.

¹⁴⁶ *Ibid.*, 39.

The winged insect was only one aspect of Bourbon defenses in the New World. While British soldiers perished before the masonry fortifications, the Spanish defenders remained safely behind their walls. They used mostly immune negro slaves and locally raised militia troops to repair damages to fortifications, emplace fascines, and dig trenches. If their own regular troops, often well acclimatized to the extreme conditions, were healthy, they sortied against the attacker in order to throw off his timetable, destroy equipment, and hopefully kill soldiers. There was little hope that the Bourbon crown would attempt to relieve the besieged because of the great risk of losing sailors and ships to the Royal Navy. As long as the defenders held out long enough, "the winged virgin" and the environment would save them.¹⁴⁷

¹⁴⁷ John Robert McNeill, *Atlantic Empires*, 101-5.

CHAPTER 5

“Consider the Whole Globe”

The real question is how the British eventually overcame the handicaps of this environment, particularly harsh in wartime, to succeed and destroy the Spanish myth of the infallibility of their colonial empire. Was “the British triumph at Havana...a fluke” as one historian claims or was it part of something much bigger?¹⁴⁸ As discussed above, Thomas Molyneux provided several insights into this perplexing historical question. He lamented the military’s propensity “to neglect cultivating and improving that Kind of War the most adapted to the peculiar Interest of their Country.”¹⁴⁹ His argument was not just a question over Continental versus Blue Water strategy, but it was a suggested how best to use available British assets: a small army, at least by European standards of the time, and a large navy. He proposed a new method of eighteenth century strategic warfare; a kind of global oceanic blitzkrieg. He foresaw “Conjunct Expeditions being...carried...into Execution by small Armaments (however we mean one equal to the Object).”¹⁵⁰ Rather than follow the example of the French, Austrians, and Prussians who

¹⁴⁸ John Robert McNeill, *Atlantic Empires*, 104.

¹⁴⁹ Molyneux, part 2, 18.

¹⁵⁰ *Ibid.*, part 2, 10-11. When discussing small armaments, Molyneux is referring to the much smaller forces employed in distant operations as opposed to those required on Continental expeditions. The French coast, he claimed, “ought never to be insulted with less than twice eight-thousand, we may add sometimes another 8000 to that Number...A Coast so populous and fortified as to require at least 16,000 Soldiers; when we have seldom afforded more than half that Number.”

campaigns across the Continent with enormous armies, the British, he believed, could use their small, professional army and formidable navy to attack "Places [that] are seldom thought Objects sufficient to take up the Attention of the Mother Nation to which they belong."¹⁵¹

This idea of tailoring the size of the expedition is fundamental to force projection style warfare, a concern in the eighteenth century as well as today. The Spanish in the West Indies were surprised and intimidated by the size of a force that the British deployed to New Spain in 1741. One Spanish account calls Vernon's armada "the largest and most fearful fleet ever seen on the sea," and the opposing soldiers and slave laborers as "such a great army."¹⁵² These expeditionary armies were actually small when compared with forces used in operations against the coast of France around the same period; yet relative to the combat power that Hawkins, Drake, and De Pointis commanded when capturing Cartagena, the strength of this combined operation was impressive.¹⁵³ Britain had changed the nature of warfare in this area of the

¹⁵¹ Ibid., part 2, 10.

¹⁵² Spain, "*Diario de todo lo ocurrido*," 101. Compared with previous military operations in the West Indies, this was an extremely impressive force to send over such a great distance. The surprise of the Spanish defenders is not unwarranted.

¹⁵³ In 1586, Drake captured Cartagena with approximately 1,500 healthy soldiers and sailors. De Pointis successfully sacked the city with 4,000 sailors, marines, and soldiers and an additional 1,000 buccaneers and militia in 1697. Less than half a century later, Vernon arrived off the coast of Cartagena with 8,600 regular troops. The biggest difference between the latter two campaigns is that De Pointis commanded only twenty line-of-battle ships with thirty sail total while Vernon's fleet sailed thirty line-of-battle ships and one hundred and twenty-four ships in all. These attacking armies, including Albemarle's 12,000 man force in Havana, appear small by Continental standards. Geoffrey Parker, John Lynn, and I. A. A. Thompson argue that significant factors forced the growth of European armies at this time. See articles by these three writers in *The Military Revolution Debate: Readings on the Military Transformation of Early Modern Europe*, ed. Clifford J. Rogers (Boulder: Westview Press, 1995). With respect to the Caribbean, their theories seem less important. Yet, the British forces (land and sea) continue to grow in size and strength throughout the eighteenth century. In the West Indies, European military power was not based on the mass of soldiers alone; it also encompassed fortifications, availability of protected deep draft ports, warship size and

world–Buccaneer plundering was a thing of the past. Despite holding the advantage in men and arms, the British still failed on the shores of Colombia. The ill-fated siege demonstrated the British ability to organize and hurl a massive invasion force against the shores of virtually any Spanish colonial holding. Both sides learned different lessons from this campaign: this fiasco only helped reinforce the Spanish illusion of a faultless defense while the British “attributed [the miscarriage] to the having not a sufficient Number of Troops.” British leaders corrected this problem in Havana.¹⁵⁴

The British, as shown in the first case study, had another problem with trying to wage a war that “comes like Thunder and Lightning to some unprepared Part of the World.” They lost the element of surprise.¹⁵⁵ Strategic surprise was essential in effectively projecting force. “It has been said, or at least, words to the same meaning,” Molyneux claims, “that the Conjunct Armament brings with it, not only Terror but Surprise; it is the first Message of its own Approach.”¹⁵⁶ The British had shown time and again that by achieving surprise, they could gain the initiative: Louisbourg in 1758, Guadeloupe in 1759, Martinique in 1762, Havana in 1762, Manila in 1762, and New York in 1776.¹⁵⁷

Besides tailoring the force and gaining the element of surprise, Molyneux argued that cooperation between the services played an important part in these difficult

numbers, quantity of transport and cargo ships, leadership and experience, and most importantly, the ability to integrate these assets in order to achieve military success quickly.

¹⁵⁴ Molyneux, part 2, 10.

¹⁵⁵ Ibid., part 1, 4.

¹⁵⁶ Ibid., part 2, 26.

¹⁵⁷ Christopher Duffy, *The Fortress in the Age of Vauban*, 257-261, 277.

operations. Personality conflicts and rivalries characterized the difficulties between Vernon and Wentworth, and the effects of this bickering caused larger operational and logistical difficulties for the soldiers on land. Granted, Vernon's fleet in 1741 was less formidable than Pocock's in 1762, but by the time Wentworth's forces appeared at San Lazar outside Cartagena, there was no longer a threat from Spanish naval forces. Vernon could have released additional manpower to help Wentworth build his siege battery. The admiral's actions are in direct contrast to the constant assistance that Pocock offered Albemarle in both manpower and naval support. In addition to Havana, there are several other examples where the cooperation of the British land and sea commanders assisted in the overall success of the mission: Hopson and Moore in Guadeloupe, Monckton and Rodney in Martinique, and Boscawen and Wolfe in Louisbourg. Since the British military used a method of divided command during amphibious operations, a lack of collaboration between the leaders of the two services easily destroyed the kind of synchronization that took place on the first of July 1762, when British warships in Havana sacrificially drew fire to protect the land batteries.¹⁵⁸

By viewing long-term continuity and broad consensus rather than small exceptions and internal dissent, a new and regular pattern of British warfare emerges. Christopher Duffy argues that no long-term learning occurred among British military officers in the eighteenth century and "what was lacking was the element of continuity, which in turn was largely the product of the short-sighted pragmatism of the British."¹⁵⁹ Duffy overlooks many of the products that created a collective memory and allowed

¹⁵⁸ Molyneux, part 1, 4, part 2, 16, 25; Christopher Duffy, *The Fortress in the Age of Vauban*, 257-261, 272-273; Harding, *Amphibious Warfare*, 172-173.

¹⁵⁹ Christopher Duffy, *The Fortress in the Age of Vauban*, 261.

British force projection to succeed. There was a British military culture “whose behavior reveals coherence and consistency, and which can be said to learn from and remember its military past.”¹⁶⁰ English military officers, although still aristocratic, had developed a nascent professionalism based upon more than a half-century of near constant military conflict. Nicholas Rodger claims that for the officers of the Georgian Navy, the British system of patronage was much more than just a corrupt method of politics. Personal and political influence did not necessarily steer a course to failure; rather, this system continually produced fine results. Rodger refers to the naval officer corps of the period as a “club,” and the particular term accurately describes these masters of the sea: a homogenous body of like minded officers who shared personal ideas and experiences.¹⁶¹

In this unique British system, the senior officers served as patrons, trainers, and mentors for their younger protégés. In a century of nearly continuous warfare, combat success often translated into greater responsibility and promotion. Distinguished officers were in a better position to advance the careers of their followers. Yet to gain distinction, captains and admirals needed competent and aggressive junior leaders to carry out their orders. The Admiralty allowed flag officers on foreign station to personally fill vacancies within their squadrons without regard to seniority. These personal selectees were almost always confirmed. Success of the protégé also reflected on the patron himself. As Keppel, the naval commander at Havana said, the best officer

¹⁶⁰ John Shy, *A People Numerous and Armed: Reflections on the Military Struggle for American Independence*, 2d ed. (Ann Arbor: The University of Michigan Press, 1993), 272.

¹⁶¹ N.A.M. Rodger, *The Wooden World: An Anatomy of the Georgian Navy* (London: Collins, 1986), 273-275.

to support is the one who "will always do honour to those that prefer him."¹⁶² Patrons actively sought out viable candidates while younger officers preferred to work for men of judgment and experience. Through this system of direct personal contact, commanders handed down knowledge and expertise directly to their subordinates. Institutional learning was particularly powerful when the protégé served with his patron under combat conditions; the mentor passed on the most valuable lessons of war in the line of fire.¹⁶³

Periods of armed conflict, particularly in the Americas, were never so far apart that there was not someone available who had served on a previous expedition.¹⁶⁴ Not including the somewhat unofficial military engagements involving smuggling, disputes over logging rights, armed seizures by the Spanish *Guarda Costas*, Indian warfare, colonial rebellions, and commerce raiding which occurred during periods of proclaimed peace, the Royal Navy and British army in 18th century America remained well occupied with matters of war. From 1739 until 1748, the War of Jenkin's Ear and the War of Austrian Succession provided regiments and fleets in the West Indies with a decade of nearly constant campaigning. Following the Treaty of Aix-la-Chapelle, the European forces in the Caribbean declared a peace that more closely resembled a tenuous truce. Commerce raiding, letters of reprisals, territorial disputes, and illegal seizures were once again the order of business. This period of non-sanctioned warfare ended in 1756 with the start of the Seven Year's War. The importance of the numerous overseas operations

¹⁶² Augustus Keppel as quoted in Rodger, *The Wooden World*, 277.

¹⁶³ Daniel A. Baugh, ed., *Naval Administration, 1715-1750* (London: The Spottiswoode Ballantyne Press, 1977), 36.

¹⁶⁴ In a personal E-mail message dated 12 May 1998, historian Michael Duffy emphasized this same importance of near continuous warfare in handing down learning and information.

during the Seven Year's War cannot be overemphasized. Each mission provided the British soldiers, sailors, officers, and ministry officials with fresh historical lessons for planning and executing future endeavors.

By 1763, the English had gained the upper hand in the Americas. However, the War of American Independence from 1775 to 1783 offered their enemies an opportunity to even the score in the West Indies. Despite losses in prestige and territory, the ministry of the younger Pitt increased military spending following the Treaty of Paris. The British military, following the Spanish lead, elected to increase defenses and improve fortifications in the West Indies in 1788. After suffering some colonial losses in the Caribbean in the War of American Independence, the English discovered for themselves that they had to maintain substantial local defenses on their West Indian islands. British setbacks in this war occurred even while they maintained a strong fleet in the Caribbean Sea; this fact did not go unnoticed in parliamentary debates. Eventually, British fortification improvements in the Indies paid off. In 1793, the British fought the greater part of the Wars of the French Revolution and the Napoleonic Wars in the New World and in the water. Well over half a century of conflict served as the training schools for the British officer corps.¹⁶⁵

For the navy, the patronage system coupled with an extended period of hostility produced a number of capable leaders. Several sea officers who served in Cartagena under Vernon had risen to command ships in Havana twenty-one years later. Sir Chaloner Ogle who fought as a rear admiral in 1741, also commanded the 44 gun *Dover*

¹⁶⁵ Richmond, *Statesmen and Sea Power*, 159-161.

under Admiral Pocock. While only seventeen during the Cartagena expedition, Augustus Hervey later served with distinction in the Seven Year's War. He forced the surrender of the enemy commander of St. Lucia in 1762 and bottled up a French fleet in St. Domingue. This latter action was crucial in keeping the French and Spanish fleets from linking up and allowing Pocock's transport ships to arrive at Havana unhindered and undetected. Arthur Forrest, who received a Lieutenancy from Vernon after Cartagena, commanded the fleet protecting Jamaica during the siege of Havana. Another Cartagena veteran, Lieutenant James Douglas, served as a commodore under Rodney in Martinique and then under Pocock shortly thereafter. Charles Knowles, who some historians have credited for devising the entire plan for the Havana expedition, served his many years in the West Indies under Vernon and as governor of Havana. The accomplishments of these officers proved essential for the success of British arms in 1762.¹⁶⁶ Most importantly, many of the British officers who participated in these amphibious campaigns served in several wars and on numerous expeditions. Along with the thousands of unnamed veteran non-commissioned officers and enlisted men, these leaders forged a critical link in passing along expertise learned from the past.¹⁶⁷

Throughout the eighteenth century, British officers and leaders also passed along methods of institutional learning through more formal means. During this time, soldiers

¹⁶⁶ In 1852, George Thomas Keppel credited Knowles with devising the plan for Havana and submitting the idea to William Pitt. As discussed above, the exact person responsible for devising the plan is uncertain. See note 98 for an explanation of Knowles' intelligence contribution to the campaign.

¹⁶⁷ Erskine, *August Hervey's Journal*, xxii, xxvi, 48; Ranft, *The Vernon Papers*, 81, 98, 149, 249; Francis Russell Hart, *Admirals of the Caribbean*, 140-142; Syrett, *The Siege and Capture of Havana 1762*, xiv-xix, 134-135, A list of His Majesty's ships and vessels that are to proceed through the Old Straits of Bahama under the command of Sir George Pocock, undated.

and sailors published journals recounting the positive aspects and the mistakes of these operations. Periodicals like *The London Gazette* and *Gentlemen's Magazine* displayed these journals, maps, numbers of foreign ships captured, and also personal letters from officers who fought in these sieges overseas. While floating off the shores of southern England, Cathcart, to his unpleasant surprise, read "one of the News papers" and discovered "a Copy of the [supposedly secret] proclamation to be published by me in America."¹⁶⁸ Twenty-two years later, Charles Wyndham, 2nd Earl of Egremont, provided the Earl of Albemarle with "the Gazette" and informed him that it "will give your Lordship the latest Accounts We have received from Germany, and will shew your Lordship the further Advantages which His Majesty's Troops have gained in that Part of the World."¹⁶⁹ Even while he laid siege to a city halfway around the world, this British army officer could still follow the war in Europe through these newspaper accounts.

The War of Jenkin's Ear and the failed campaign at Cartagena led directly to several books. Writer John Campbell, the author of *A Concise History of the Spanish America* (1741), also published the four volume work of *Lives of the Admirals* (1742-44). This latter survey reached three editions in his lifetime and was re-issued for many years after. Tobias Smollett recounted the disaster of Cartagena in *The Adventures of Roderick Random*, a fictional, yet accurate, account which became very popular in its time. One of Smollett's biographers, David Hannay, claimed that the surgeon's mate turned author performed a great service to England by revealing the military inefficiencies of the

¹⁶⁸ Cathcart to Andrew Stone, 12 October 1740, PRO CO 5/41, f.186.

¹⁶⁹ Egremont to Albemarle, 7 August 1762, PRO CO 117/1, f. 68.

British at Cartagena.¹⁷⁰ The same year the Seven Year's War ended, the Reverend John Entick published the first of his multi-volume chronicle of that conflict. All of these works allowed politicians and officers alike to recount, review, and study these very recent campaigns and operations in a historical context.

Numerous military writers added their own literature to the works of Campbell, Smollett, and Entick. Their writings included numerous published pamphlets and several books on all kinds of war-related subjects. Although writing for mostly personal and political reasons, Vernon, Knowles, and Wentworth published numerous treatises and personal accounts of the actions at Cartagena. While attempting to vindicate their actions during the siege, these men also helped to educate future ministers and commanders about the problems inherent in combined operations. Although for slightly less political and face-saving reasons, many officers in the Havana expedition also published their accounts of the expeditions in pamphlets. Pamphlets allowed publishers to produce an inexpensive document that was widely circulated and read. Furthermore, several army and navy officers published their letters, journals, and personal experiences following each littoral campaign, on the European continent and in America, during the Seven Year's War.¹⁷¹ The uneven success of amphibious operations during the century

¹⁷⁰ The biographer's own words are quite flattering of Smollett's role in English military reform: "By bringing it home to his countrymen Smollett did the State no small service...He helped to make his generation understand what a hatefully cruel thing military inefficiency is...It is, I hope, not very ferocious to think with some complacency that Smollett unwittingly, but not the less beneficially, helped to...give all leaders in war an unforgettable warning that their personal feelings were not to come in the way of the discharge of their duty." David Hannay, *Life and Writings of Tobias George Smollett* (1887; reprint Freeport, New York: Books for Libraries Press, 1971), 38.

¹⁷¹ As George Orwell noted, "A pamphlet is a short piece of polemical writing, printed in the form of a booklet and aimed at a large public...a true pamphlet will always...be unbound and obtainable for a few pence. A pamphlet is never written primarily to give entertainment or to make money. It is written because there is something one wants to say now, and because one believes there is no other way of getting a

sparked the interest of Molyneux and J. MacIntire.¹⁷² Their descriptions of operations worldwide operations added significantly to military literature. It was not only the combat officers who printed their ideas. Dr. James Lind, Sir Gilbert Blane, and Dr. Thomas Trotter published treatises on diseases in tropical climates and how military forces could avoid or treat them.¹⁷³ All of these works created an informal collection of professional writings on aspects of combined operations in a global setting.

The British governments of the eighteenth century had, over a sixty-year period, developed a successful ability to project power worldwide. This force projection capability changed forever the balance of power in the West Indies. The experiences gained during the British operations in the Caribbean, which were used to develop this strategic capability, were not lost. Officers and politicians, many times one and the same, readily discussed operational and strategic possibilities for creating a world empire.¹⁷⁴ These same British officials heeded the advice of the Duke of Newcastle: "Ministers in this Country, where every part of the world affects us, in some way or other, should consider the while Globe."¹⁷⁵ By developing a geo-strategic perspective of hegemonic authority and projecting elements of national power into the Caribbean, Great

hearing." See George Orwell and Reginald Reynolds, ed., *British Pamphleteers*, vol. 1 (London: Allan Wingate, 1948), 7.

¹⁷² J. MacIntire, *A military treatise on the discipline of marine forces* (London, 1763).

¹⁷³ For a listing of many of these journals and diaries, see bibliography; Christopher Lloyd, ed., *The Health of Seamen: Selections from the Works of Dr. James Lind, Sir Gilbert Blane, and Dr. Thomas Trotter* (London: Spottiswoode, Ballantyne, and Company, 1965).

¹⁷⁴ Electronic mail from Nicholas Rodger dated 1 May 1998.

¹⁷⁵ Newcastle to Holderness, 25 July, 1758, British Library, Add. M. ss. 32,882, ff.65-6; quoted in Middleton, *The Bells of Victory*, 77.

Britain asserted its own regional demands upon its Spanish neighbor. The balance of power, so critical on the Continent, had shifted to Great Britain in the West Indies.

Although the British returned Havana to Spain after the peace, they had proven that there was no fortress in colonial Spain that they could not threaten or destroy. Churchill's comment to President Roosevelt written almost two centuries later during the Second World War, stood true for the Spanish authorities in the Caribbean during the 18th century: "The oceans, which were once your shield, threaten to become your cage..."¹⁷⁶ The Spaniard's own myth of their New World invulnerability was shattered forever.

¹⁷⁶ Quoted in Allan R. Millet and Peter Maslowski, *For the Common Defense: A Military History of the United States of America*, 2d ed., rev. and exp. (New York: The Free Press, 1994), 435.

BIBLIOGRAPHY

John Carter Brown Library

Serres, Dominic. *Perspective View of Entering the Breach of the Moro Castle, by storm the 30th of July 1762*. Engraving. Anne S. K. Brown Military Collection, Hay Library, Providence, Rhode Island.

Newberry Library

Spain. *Votos de los once comprendidos en el Proceso formado con motivo de la rendición de la Plaza de la Havana a las Tropas de S.M. Británica el día de Agto. De 1762 fundados en los motivos y juicios que acompañan de el Esmo. Sor. Conde de Aranda Presidente que fue del consejo de Guerra, 8 February 1765*. Edward E. Ayer Manuscript Collection, MS 1224, Newberry Library, Chicago.

New York Public Library

Anon. *Journal of the siege of Martinique beginning the 7 of Jany and ending the 5 of Feby 1762*. Manuscripts Room Collection, New York Public Library, New York.

Public Record Office

Admiralty Papers

ADM 1 (Jamaica Correspondence)/233/1

Chatham Deposit

PRO 30/8/39 (Inletters to Lord & Lady Chatham)

Colonial Office Papers

CO 5 (American & West Indies Original Correspondences)/5, 12, 41

CO 117 (Havana Original Correspondences – Secretary of State)/1

CO 318 (Board of Trade – Military)/3

State Papers

SP 42 (State Papers – Naval)/85, 92

SP 78 (State Papers – France)/218, 227A

Early English Newspapers

Craftsman

Gentleman's Magazine

The London Gazette

Published Primary Sources

- Albemarle, George Thomas Keppel. *Memoirs of the Marquis of Rockingham and his Contemporaries*. London: Bentley, 1852.
- Anon. *A Geographical and Historical Description of the Principal Objects of the Present War in the West-Indies, viz. Cartagena, Puerto Bello, La Vera Cruz, The Havana, and San Agustin, shewing their Situation, Strength, Trade, & c. with An Account of the many Sieges they have Undergone to the Present Time*. London: T. Gardner, 1741.
- Anon. *An Authentic Journal of the siege of the Havana by an Officer*. London: T. Jefferys, 1762.
- Anon. *Authentic Papers Relating to the Expedition against Carthagena Being the Resolutions of the Councils of War; Both of Sea and Land-Officers*. London: L. Raymond, 1744.
- Anon. *A Journal of the Expedition to Carthagena with Notes*. London: J. Roberts, 1744.
- Anon. *Spanish Insolence Corrected by English Bravery*. London, 1739.
- Anon. *The Seat of War in the West Indies*. London: G. Foster, 1740.
- Beatson, Robert. *Naval and Military Memoirs of Great Britain from 1727 to 1783*. Vol. 1. Boston: Gregg Press, 1972.
- Doyley, Edward. *A Brief Relation of a Victory, Obtained by the Forces under the Command of Gen. Edward Doyley, Command in chief of his Highnesse's Forces in the Island Of Jamaica, Against The Forces of the King of Spain, Commanded by Don Christopher Arnaldo Saff, Command in chief of the Spanish Forces there*. Edinburgh, 1659.
- Erskin, David, ed. *Augustus Hervey Journal: Being the Intimate Account of the Life of a Captain in the Royal Navy Ashore and Afloat, 1746-1579*. London: William Kimber, 1953.
- Howard, Thomas Phipps. *The Haitian Journal of Lieutenant Howard, York Hussars, 1796-1798*. Knoxville: University of Tennessee Press, 1985.
- Keppel, George Thomas. *Memoirs of the Marquis of Rockingham and his Contemporaries*. Vol. 1. London: Richard Bentley, 1852.
- Lind, James. *An Essay on Diseases Incidental to Europeans in Hot Climates, with a Method of Preventing their Fatal Consequences*. Edinburgh, 1768. Reprint, Philadelphia: William Duane, 1811.
- Lloyd, Christopher, ed. *The Health of Seamen: Selections from the Works of Dr. James Lind, Sir Gilbert Blane and Dr. Thomas Trotter*. London: Spottiswoode, Ballantyne and Company, 1965.

- MacIntire, J. *A military treatise on the discipline of marine forces*. London, 1763.
- Mackellar, Patrick. *A Correct Journal of the Landing of His Majesty's Forces on the Island of Cuba: and of the Siege and Surrender of the Havannah, August, 13, 1762*. London: Green & Russell, 1762.
- Molyneux, Thomas More. *Conjunct Expeditions*. London: R. and J. Dodsley, 1759.
- Park, Roswell. *A Journal of the Expedition against Cuba*. Buffalo: University of New York, 1920.
- Pinckard, George. *Notes of the West Indies: Written during the expedition under the command of the late General Sir Ralph Abercromby: including observations on the island of Barbadoes, and the settlements captured by the British troops on the coast of Guiana...* London: Longman, Hurst, Rees, and Orme, 1806.
- Ranft, B. McL., ed. *The Vernon Papers*. London: Naval Records Society, 1958.
- Robertson, Archibald. *Archibald Robertson, Lieutenant-General Royal Engineers, His Diaries and Sketches in America, 1762-1780*. New York: The New York Public Library, 1933.
- Smollett, Tobias George. *The Adventures of Roderick Random*. London: 1748. Reprint, London: The Folio Society, 1961.
- Spain. "Diario de todo lo ocurrido en la expugnacion de las fuertes de Bocachica, y sitio de la ciudad de Cartegena de las Indias (1741)" (Diary of all that occurred with the expulsion of the forces at Bocachica, and located in the city of Cartegena of the Indies, 1741). In *Spain Under the Bourbons, 1700-1833: A collection of documents*. Ed. W.N. Hargreaves-Mawdsley, 100-106.
- Syrett, David, ed. *The Siege and Capture of Havana, 1762*. London: Spottiswoode, Ballantyne, and Company, 1970.

Secondary Sources

- Black, Jeremy. *European Warfare, 1660-1815*. New Haven: Yale University Press, 1994.
- Baugh, Daniel A., ed. *Naval Administration, 1715-1750*. London: The Spottiswoode Ballantyne Press, 1977.
- Braudel, Fernand. *The Mediterranean and the Mediterranean World in the Age of Philip II*. Vol. 1. Berkeley: University of California Press, 1995.
- , *The Mediterranean and the Mediterranean World in the Age of Philip II*. Vol. 2. New York: Harper and Row Publishers, 1973.
- Browning, Reed. *The War of the Austrian Succession*. New York: St. Martin's Griffin, 1995.
- Buchet, Christian. "The Royal Navy and the Caribbean, 1689-1763." *The Mariner's Mirror* 80, no.1 (February 1994): 30-44.
- Burnet, MacFarlane and David O. White. *Natural History of Infectious Diseases*. Cambridge: The University Press, 1972.
- Burns, Alan. *History of the British West Indies*. London: George Allen & Unwin LTD, 1954.
- Cantile, Neil. *A History of the Army Medical Department*. Vol. 1. London: Churchill Livingstone, 1974.
- Chaunu, Pierre. *European Expansion in the Later Middle Ages*. Amsterdam: North Holland Publishing Company, 1979.
- Clausewitz, Carl von. *On War*. Ed. Michael Howard and Peter Paret. Prussia: 1832. Reprint Princeton: Princeton University Press, 1984.
- Cook, Noble David and W. George Lovell. "Secret Judgments of God:" *Old World Diseases in Colonial Spanish America*. Norman: University of Oklahoma Press, 1991.
- Cooper, Donald B. and Kenneth F. Kiple. "Yellow Fever." In *The Cambridge World History of Human Disease*. Ed. Kenneth F. Kiple. Cambridge: University Press, 1994.
- Corbett, Julian S. *England in the Seven Years' War: A Study in Combined Strategy*. Vols. 1 & 2. London: Longmans, Green, and Company, 1907.
- , *The Navy in the War of 1739-48*. Vol. 1. London: Cambridge University Press, 1920.
- Crosby, Alfred W. *Ecological Imperialism: The Biological Expansion of Europe, 900-1900*. Cambridge: Cambridge University Press, 1986.
- , *The Columbian Exchange: Biological and Cultural Consequences of 1492*. Westport, Connecticut: Greenwood Press, 1972.

- Department of the Army. *Operations*. Field Manual 100-5. Washington, D.C.: U. S. Government Printing Office, 1993.
- Duffy, Christopher. *The Fortress in the Age of Vauban and Frederick the Great, 1660-1789: Siege Warfare Volume II*. London: Routledge and Kegan Paul, 1985.
- Duffy, Michael, University of Exeter, to author, 12 May 1998. Electronic mail message.
- Elliott, John H. *Imperial Spain, 1469-1716*. London: Edward Arnold Publishers, Ltd., 1963.
- Fortescue, J.W. *A History of the British Army*. Vol. 2. London: Macmillan and Company, 1935.
- Hamshire, Cyril. *The British in the Caribbean*. London: Weidenfeld and Nicolson, 1972.
- Hannay, David. *Life and Writings of Tobias Smollett*. 1887. Reprint Freeport, New York: Books Libraries Press, 1971.
- Harding, Richard. *Amphibious Warfare in the Eighteenth Century: The British Expedition to the West Indies, 1740-1742*. Woodbridge, Great Britain: The Boydell Press, 1991.
- Harkness, Albert, Jr. "Americanism and Jenkin's Ear." In *The Mississippi Valley Historical Review* 37 (June 1950): 61-90.
- Hart, Francis Russell. *Admirals of the Caribbean*. Boston: Houghton Mifflin Company, 1922.
- Hassig, Ross. *Mexico and the Spanish Conquest*. London: Longman Group UK Limited, 1994.
- Hawaiian Health Department. Communicable Disease - Yellow Fever Fact Sheet. [Http://mano.icsd.hawaii.gov/health/cdd/cddyellow.htm](http://mano.icsd.hawaii.gov/health/cdd/cddyellow.htm). Internet.
- Hayter, Tony. "The Army and the First British Empire." In *The Oxford Illustrated History of the British Army*. Ed. David Chandler. Oxford: Oxford University Press, 1994.
- Kagan, Richard L. and Geoffrey Parker, ed. *Spain, Europe and the Atlantic world: Essays in honour of John Elliot*. Cambridge: University Press, 1995.
- Kennedy, Paul. *The Rise and Fall of the Great Powers: Economic Change and Military Conflict from 1500 to 2000*. New York: Random House, 1987.
- Krieg, Joann P. *Epidemics in the Modern World*. New York: Twayne Publishers, 1992.
- Kuethe, Allan J. *Cuba, 1753-1815: Crown, Military, and Society*. Knoxville: University of Tennessee Press, 1986.

- , "Havana in the Eighteenth Century." In *Atlantic Port Cities: Economy, Culture, and Society in the Atlantic World, 1650-1850*. Eds. Franklin W. Knight and Peggy K. Liss. Knoxville: The University of Tennessee Press, 1991.
- Kupperman, Karen Ordahl. "Fear of Hot Climates in the Anglo-American Colonial Experience." *William and Mary Quarterly* 41 (1984): 213-40.
- Lanning, John Tate. *The Diplomatic History of Georgia*. Chapel Hill: The University of North Carolina Press, 1936.
- Lloyd, Christopher and Jack L. S. Coulter. *Medicine and the Navy, 1200-1900*. Vol. 3. Edinburgh: E. & S. Livingston, 1961.
- Lloyd, Christopher. *The Nation and the Navy: A History of Naval Life and Policy*. London: The Cresset Press, 1961.
- Long, John Cuthbert. *Lord Jeffery Amherst, Soldier of the King*. New York: The Macmillan Company, 1933.
- Mahan, Alfred Thayer. *The Influence of Sea Power Upon History, 1660-1783*. Boston: Little, Brown, and Company, 1890. Reprint, New York: Dover Publications, Inc., 1987.
- Marley, David F. *Wars of the Americas: A Chronology of the Armed Conflict in the New World, 1492 to the Present*. Santa Barbara, California: ABC-CLIO, Inc., 1998.
- McLaughlin, Mark G. "History, Early Modern Military." In *Brassey's Encyclopedia of Military History and Biography*. Edited by Franklin D. Margiotta. Washington: Brassey's, 1994.
- McNeill, John Robert. *Atlantic Empires of France and Spain: Louisbourg and Havana, 1700-1763*. Chapel Hill: The University of North Carolina Press, 1985.
- McNeill, William H. *Plagues and Peoples*. Garden City, New York: Anchor Press, 1976.
- , *The Pursuit of Power: Technology, Armed Force, and Society since A.D. 1000*. Chicago: The University of Chicago Press, 1982.
- Middleton, Richard. *The Bells of Victory: The Pitt-Newcastle Ministry and the Conduct of the Seven Years' War, 1757-1762*. Cambridge: Cambridge University Press, 1985.
- Millett, Allan R. and Peter Maslowski. *For the Common Defense: A Military History of the United States of America*. 2d edition, revised and expanded. New York: The Free Press, 1994.
- Montalembert, M. R. *La fortification perpendiculaire*. Vol. 3. Paris: 1776-96.
- Nef, John Ulrich. *War and Human Progress: An Essay on the Rise of Industrial Civilization*. New York: W. W. Norton, 1968.

- Orwell, George and Reginald Reynolds, ed. *British Pamphleteers*. Vol. 1. London: Allan Wingate, 1948.
- North, Douglas C. and Robert P. Thomas. *The Rise of the Western World*. Cambridge: Cambridge University Press, 1973.
- Padfield, Peter. *Tides of Empire: Decisive Naval Campaigns in the Rise of the West*. Vol. 2. London: Routledge and Kegan Paul, 1982.
- Pares, Richard. *War and Trade in the West Indies, 1739-1763*. Oxford: Clarendon Press, 1936.
- , *The Military Revolution: Military innovation and the rise of the West, 1500-1800*, 2d ed. Cambridge: Cambridge University Press, 1988.
- Parry, John H. *The Establishment of the European Hegemony 1415-1715*, 3d ed. New York: Harper and Row, 1966.
- Preston, Richard A., Sidney F. Wise, and Alex Roland. *Men in Arms: A History of Warfare and Its Interrelationships with Western Society*, 5th ed. Fort Worth: Holt, Rinehart and Winston, Inc., 1991.
- Richmond, Herbert William. *The Navy in the War of 1739-48*. Vol. 1. Cambridge: Cambridge University Press, 1920.
- , *Statesmen and Sea Power*. Oxford: The Clarendon Press, 1943.
- Roberts, W. Adolphe. *The Caribbean: The Story of Our Sea of Destiny*. New York: The Bobbs-Merrill Company, 1940.
- Rodger, N.A.M., London, to author, 1 May 1998. Electronic mail message.
- , "The Development of Broadside Gunnery, 1450-1650." *The Mariner's Mirror* 83, no. 2 (August, 1996): 301-324.
- , *The Safeguard of the Sea: A Naval History of Britain, 600-1649*. New York: W. W. Norton & Company, 1998.
- , *The Wooden World: An Anatomy of the Georgian Navy*. London: Collins, 1986.
- Rogers, Clifford J. ed. *The Military Revolution Debate: Readings on the Military Transformation of Early Modern Europe*. Boulder: Westview Press, 1995.
- Rothenberg, Gunther E. *The Art of Warfare in the Age of Napoleon*. Bloomington, Indiana: Indiana University Press, 1978.
- Salas, Rodolfo Segovia. *The Fortifications of Cartagena de Indias: Strategy and History*. Bogota: Carlos Valencia Editores, 1982.

Sander, George Earl. "The Spanish Defense of America, 1700-1763." Ph.D. diss., University of California, 1974

Segovia, Salas Rodolfo. *The Fortifications of Cartagena de Indias: Strategy and History*. Bogotá: C. Valencia, 1982.

Shy, John. *A People Numerous and Armed: Reflections on the Military Struggle for American Independence*, 2d ed. Ann Arbor: The University of Michigan Press, 1993.

Simpson, Howard N. *Invisible Armies: The Impact of Disease on American History*. New York: The Bobbs-Merrill Company, 1980.

Sledge, E. B. *With the Old Breed: At Peleliu and Okinawa*. New York: Oxford University Press, 1990.

Stokesbury, James L. *Navy and Empire*. New York: William Morrow and Company, 1983.

Till, Geoffrey. "Amphibious Operations and the British." In *Amphibious Operations: A Collection of Papers*. Camberley, Great Britain: The Strategic and Combat Studies Institute, 1997.

United States Joint Chiefs of Staff. *Concept for Future Joint Operations: Expanding Joint Vision 2010*. Fort Monroe, Virginia: Joint Warfighting Center, May, 1997. Website on-line, Available from <http://131.84.1.34/doctrine/jv2010/concept.htm>.

Viljoen, Stephan. *Economic Systems in World History*. London: Longman, 1974.

Wallerstein, Immanuel. *The Modern World System III: The Second Era of Great Expansion of the Capitalist World-Economy, 1730-1840s*. New York: Academic Press, 1989.

Wills, Christopher. *Plagues: Their Origin, History, and Future*. London: Harper Collins, 1996.

Wilson, Kathleen. *The Sense of the People: Politics, Culture, and Imperialism in England, 1715-1785*. New York: Cambridge University Press, 1995.

World Health Organization. Emerging and Other Communicable Diseases (EMC) - Yellow Fever Fact Sheet. 100 (December 1995). [Http://who.ch/emc/yellow/index/htm](http://who.ch/emc/yellow/index/htm). Internet.

Wright, J. Leitch, Jr. *Anglo-Spanish Rivalry in North America*. Athens, Georgia: University of Georgia Press, 1971.

Zulueta, Julián de. "Health and Military Factors in Vernon's Failure at Cartagena." *The Mariner's Mirror* 78, no. 2 (May 1992): 127-141.